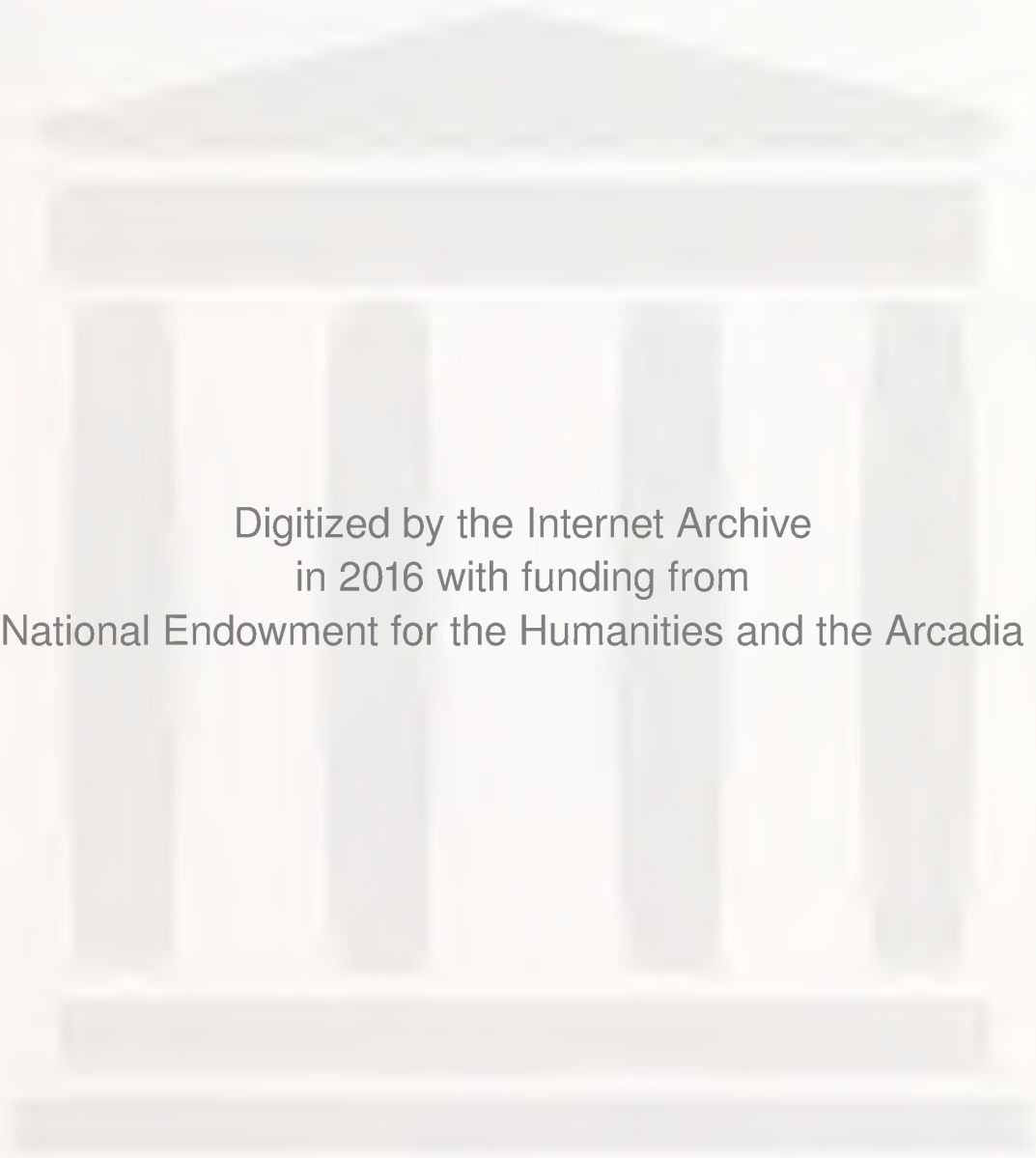


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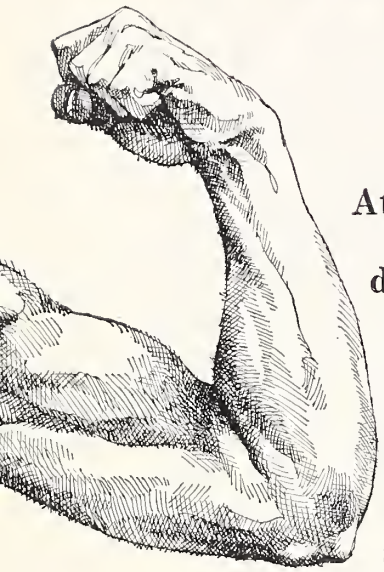
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- Emergency Care of Stroke Patient
- Advances in Ileal Conduit Stomal Care
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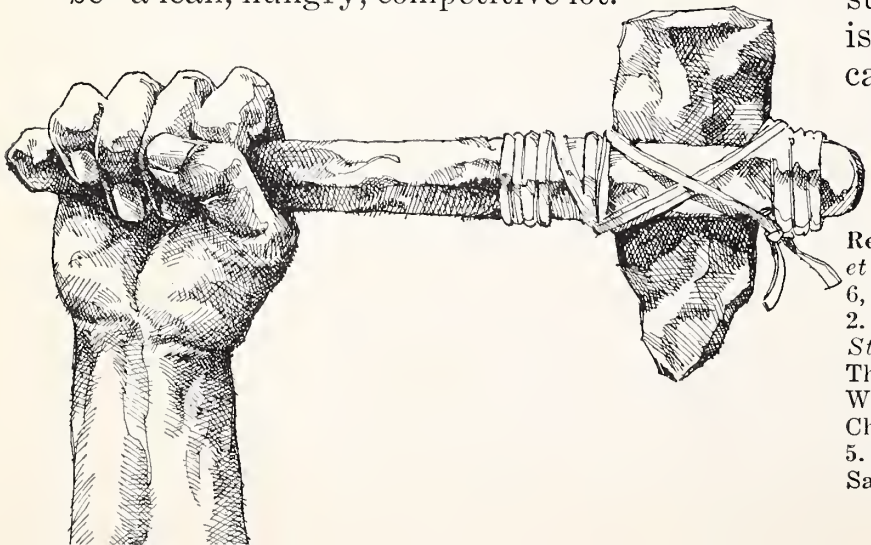
IF MORE MEN CRIED



At least seventy-five out of one hundred adults with duodenal ulcers are men.[1] Why? It may be significant that duodenal ulcer patients tend to crave recognition and are "especially vulnerable to threats to their manly assertive independence."[2]

Hypersecretion—an atavistic response. Stewart Wolf, who, with Harold G. Wolff, studied the personalities of duodenal ulcer patients, wonders if masculine competitiveness is related to "an atavistic urge to devour an adversary." It is striking, he reports, that an accentuation of gastric acid secretion and motility can be "induced in ulcer patients by discussions that arouse feelings of inadequacy, frustration and resentment."[2]

By chance? A lean, hungry lot. Was the link between emotions and gastric hyperacidity acquired through mutation to serve a purpose? During man's jungle period of evolution, the investigator points out, a male dealt with a foe by killing and devouring it. "It may be more than coincidence," he concludes, that peptic ulcer patients appear to be "a lean, hungry, competitive lot."[3]



Big boys don't cry. If more men cri maybe fewer would wind up with duoden ulcers. But men will be men—the sum total their genes and what th are taught. Schottstae observes that when mother admonishes h son who has hurt hims that big boys don't cry, s is teaching h stoicism.[4] Crying is t negation of everythi society thinks of as man A boy starts defending h manhood at an early a

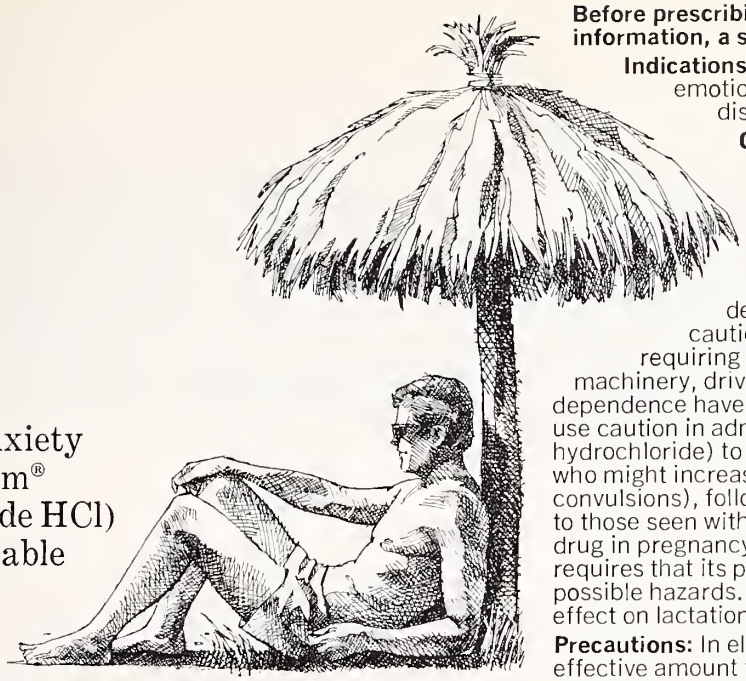


Take away stre you can take away symptor

There is no question that stress play role in the etiology of duodenal ulc Alvarez[5] observes that many a man with ulcer loses his symptoms the day he shuts the office and starts out on a vacation. T problem is, the type of man likely to have ulcer is the type least likely to take lo vacations or take it easy at work.

The rest cure vs. the two-way action Librax.® For most patients, the rest cure as unrealistic as it is desirable. Still, t stress factor must be dealt with. And h is where the dual action of adjunctive Libr can help. Librax is the only drug that co

References: 1. Silen, W.: "Peptic Ulcer," in Wintrobe, M. *et al.* (eds.): *Harrison's Prineiples of Internal Medieine* 6, New York, McGraw-Hill Book Company, 1970, p. 1 2. Wolf, S., and Goodell, H. (eds.): *Harold G. Wo Stress and Disease*, ed. 2, Springfield, Ill., Charle Thomas, 1968, pp. 68-69. 3. *Ibid.*, p. 257. 4. Schottsta W. W.: *Psychophysiologic Approaeh in Medieal Prac* Chicago, Ill., The Year Book Publishers, Inc., 1960, p. 5. Alvarez, W. C.: *The Neuroses,* Philadelphia, Pa., W Saunders Company, 1951, p. 384.



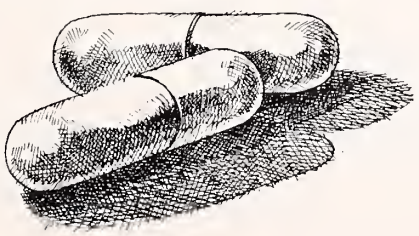
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Contraindications: Patients with glaucoma; prostatic hypertrophy and benign bladder neck obstruction; known hypersensitivity to chlordiazepoxide hydrochloride and/or clidinium bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering Librium (chlordiazepoxide hydrochloride) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards. As with all anticholinergic drugs, an inhibiting effect on lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude development of ataxia, oversedation or confusion (not more than two capsules per day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: No side effects or manifestations not seen with either compound alone have been reported with Librax. When chlordiazepoxide hydrochloride is used alone, drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally with chlordiazepoxide hydrochloride, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax are typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy and constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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President's Page



Prepayment of medical services is a concept of the future and an actuality of the present. It requires significant reflection, judgment and appraisal. Physicians initiated prepayment of medical services through sponsorship of Blue Shield and acceptance of private health insurance. Physicians look askance at some aspects of prepayment because of the horrendous problem of actuarially predicting the cost of medical care. Physicians should weigh in balance the built-in possibility of under-utilization of services, in reduction of the frequency and length of stay of hospitalization and in the reduction of the employment of laboratory and x-ray services. When prepayment has been applied to Medicare and Medicaid patients, physicians' experience has not been wholly satisfying. Governing and legislative bodies set aside specific monetary amounts for services to these people. If the medical needs exceed these allotments, then providers either have to accept the curtailment of the scope of services or have to accept a reduction of fee for service.

In some prepayment plans, the *worried-well* or the *more-worried-than-sick,* comprise an appreciable portion of the patients visiting the primary physician. Critical evaluation of the Harvard plan, of the Columbia plan, and of other groups in the Midwest and West which have employed prepayment or which are beginning prepayment will need to be meticulously judged. Physicians must be concerned about the concept of *franchising* of medical care. *Franchising* in some states has crept in, designed as a program of certificate of need. Extension of this idea to physicians portrays a totally controlled type of medical and health care system.

L. J. O'Brien M.D.

President

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Health Maintenance Organizations

KENNETH BARROWS
Des Moines

The term Health Maintenance Organization made its debut early in 1970, when John G. Veneman, Undersecretary of the Department of Health, Education and Welfare, used it in presenting some proposed legislation to Congress.

The term was used to describe a concept for the delivery and financing of health care developed by the Institute for Interdisciplinary Studies, a Minneapolis based *think tank*. The project, conducted under a federal grant, was a part of the Administration's search for a solution to the Medicare cost overrun.

Whatever its shortcomings, it must be said that the HMO concept was the product of a scholarly effort, employing modern research and development techniques, to come up with a system geared to today's social, economic and political realities. The underlying theory ran something like this:

1. **Under the present system,** the units of health care production are fragmented. Each contributes its share of the patient's care more or less independently of the others. As a consequence, there are gaps, duplications and inefficiencies. What is needed is some organizational structure capable of coordinating the units and assuming overall responsibility for the quality, continuity and cost of the patient's care.

2. **Under the present system,** the emphasis is on crisis intervention, not on health maintenance. The financial incentives for the provider are the same way. The sicker the patient, the higher the reward. All of this should be turned around, with the emphasis on prevention, early detection and treatment, and the rewards proportionate to "wellness," not sickness.

3. **The present system is inviting** more and more governmental control. This is wrong. Nothing could be worse than "post office medicine." What is needed is a pluralistic system that regulates itself through incentives, professional standards and competition for consumer favor.

The concept that emerged was a blend of old and new, with admitted and unmistakable input from prepaid group practice.

DEFINITION OF HMO

An HMO, under the concept which has emerged, is "any (1) fiscally responsible organization (2) which delivers a full spectrum of health care services (3) to a voluntarily enrolled group of persons (4) in return for fixed prepaid amounts."

By design, the concept accommodates a wide variation in organizational structure, ranging from the Kaiser Health Plan, with strong central control, ownership of the medical and hospital facilities used and a salaried staff, to the San Joaquin Foundation Plan, with minimal central control and services provided through contractual arrangements with community hospitals and private physicians engaged in independent practice.

Unfortunately, any concept of breadth has a way of taking on different meanings for different people. This has been more than true of the HMO. Much of the discussion to date has centered around particular models, especially plans of the Kaiser type. Too little attention has been given the basic ideas, which lend themselves to a variety of applications.

(Please turn to page 7)

These observations on the HMO movement were presented in December to the Iowa Chapter, American College of Surgeons. Their author, Kenneth Barrows, is Vice President-Health Care Relations, The Bankers Life, Des Moines. Mr. Barrows is now Chairman of the Iowa Regional Advisory Group and has held various other positions of responsibility in the health care field.

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Health Maintenance Organizations

(Continued from page 5)

ORGANIZATION

Organization is perhaps the most important element in the concept. The idea is to bring the providers of care together in a system of relationships under which each contributor shares responsibility for the total health care product, including its cost, not just a part of it, and each shares the rewards of a job well done.

The form of organization is not so important. It is its ability to attain the objective just stated. Any structure which makes adequate provision for the effective coordination of professional, institutional and insurance services will do. Coordination, in this context, means management. Management may be provided by the medical group, the hospital, the insurance carrier, a consortium of them, or a separate entity.

Implicit in an organization is some kind of control. It is this consideration that concerns physicians most deeply, especially the possibility of lay interference with matters involving medical judgment. In this connection, the authors of the concept, while discussing the long range futility of government controls, stated:

> *It is the indispensibility of the physician's judgment that makes it unlikely that the price regulation approach can succeed. Only the physician can determine what care is necessary and, therefore, only he can eliminate unneeded expense. The physician cannot be policed to do so, but must be motivated by professional ethics and by organizational arrangements which align his economic incentives with those of the consumer.*

Under no existing organization—not even the Kaiser Plan, with its strong central control—has there been an attempt to subject medical decisions to lay control. Characteristically, the medical group is organized within itself, and enjoys complete autonomy in the exercise of medical judgment.

QUALITY OF CARE

Under the HMO concept, the standard of quality is the maintenance of health, not simply good crisis care. It is to achieve this objective that the HMO must offer a "full spectrum" of services, ranging from preventative to rehabilitative.

The concept stresses prevention and early treatment of disease. It is the prevention of disease that puzzles most physicians. They fully agree with the goal but wonder about the *how to*. The rhetoric, they fear, may be more advanced than the art. Early treatment of disease is another matter. Here much can be done within existing technology.

It takes more than the availability of services, however, to prevent disease and assure early treatment. Much depends on living habits. Much depends on the patient's knowing when to report to the physician and how to follow his orders. For these reasons, therefore, the HMO may need educational and outreach programs suited to the populations it serves.

Nor is an adequate scope of services enough. The services must be of good quality. To assure such quality, the concept looks to peer appraisal, under the conviction that there is no better safeguard than professional standards. In an HMO peer review operates two ways. On a day-to-day, ongoing basis, the work of each participating physician is exposed to his colleagues who, because they share the responsibility for the end result, have a direct interest in it. Periodically, a formal peer review is conducted. Together these processes put the spotlight on performance. As a matter of self interest, participating physicians weed out weak performers.

Finally, where the physicians work in a group, each has convenient access to the others, and the skills of each are enhanced by the knowledge and experience of colleagues.

COST OF CARE

What about the cost of care, the major catalyst—if not that, at least a leading agitator—in the current turmoil? As in the case of quality, the HMO concept seeks self regulation rather than expanding controls. To do the job it looks to incentives.

As will be recalled, to qualify as an HMO, the organization must provide the promised services "in return for fixed prepaid amounts." The object is to align the economic interests of the provider with those of the consumer. This means, of course, rewarding the provider for keeping the consumer's costs down.

How does the provider keep costs down without sacrificing quality? One possibility—obviously a long range one—is diminishing the need for high cost care through the use of less costly preventative measures and early treatment.

Another possibility—and one more quickly capable of realization—is the efficient use of resources. In this connection, the biggest gain usually comes from the substitution of outpatient services for inpatient services. An HMO with well equipped ambulatory facilities requires half the hospital beds traditionally used. The magnitude of gain from this source is significant. A savings of 25 per cent in the cost of hospital care could result. Of course, this would be partially offset by an increase of 10 per cent or so in the cost of medical services, but the net savings is still substantial.

Where the physicians are in group practice, there is yet another possibility—the economies of scale. These arise from the spread of administrative expense and the wider use of paramedical personnel. In the later connection, the authors urge—as do others—more reliance on the supervising physician's judgment, and less on licensure laws.

Incidentally, it is not necessary that physicians participating in the HMO work on salary, or salary and bonus. How they divide the income for medical services is for them to decide. It is important, however, that they share responsibility for the end results—in both the risks and the rewards.

THE OUTLOOK

What is the outlook for the HMO? For one thing, interest is high, For another, activity is abundant.

The HMO is a part of, or compatible with, every major national health insurance proposal before Congress. In addition, it is the subject of many other pending bills, state and federal, which are promoting its development. And it has strong support in both political parties.

HMO's are forming, or have already formed, in virtually every major population center, with federal, foundation and private financing. Initiative for this activity has come from many sources: medical groups, medical schools, hospitals, insurance carriers, labor organizations and community groups.

While it is clear the concept is getting attention—and plenty of it—there is a grave question whether it is getting the right kind. In designing the concept, the authors sought an alternative to more and more federal control. That alternative, as they saw it, was a self regulating, highly diversified health industry, with many kinds of HMO's competing not only with each other but also with traditional forms of care.

Unfortunately, what is perhaps the strategy's greatest virtue, a highly pluralistic system, has been lost in the shuffle. Too much so, the issue has become one between two extremes, those who view with hostility any change in the traditional system and those who view with disdain anything less than the classic non-profit, full-time prepaid group practice.

By and large, those who view change with hostility have been silent, putting their reliance on passive resistance. In contrast, those who champion the non-profit prepaid group practice have been highly vocal, speaking out with evangelical zeal. Too few voices representing the middle ground have been raised.

The danger of this lopsided advocacy is that prospective legislation will give preferred status—or, worse yet, monopoly—to the non-profit full-time group practice approach, thus locking us into the two extremes. They alone cannot provide real pluralism for a nation as diverse as ours.

For example, plans of the Kaiser type, the model for the non-profit full-time group practice approach, may work well in large metropolitan centers, but they have little application in a state such as Iowa, with its medium-sized cities, small towns and large rural areas. To operate successfully, plans of this type require the support of 25,000 enrollees—50,000 to 100,000 for optimum results—all voluntary, all living within access range of the facilities, and all willing and able to pay the cost. In few, if any, places do we have the population densities necessary to provide support on this scale.

If the HMO strategy is to achieve its goal, to foster a self regulating, highly diversified health industry, we need a free legal environment, one that encourages the testing of new ideas adapted to local conditions and the utiliz-

ing of "in place" resources—professional and institutional—in combination with ongoing fee for service practices.

For the immediate future we can look forward to continued oratory, often generating more heat than light, and much activity, both well and ill advised. For the long run, the results will probably depend on whether we lock ourselves into the two extremes, or whether we make true pluralism a reality.

THE INSURANCE INDUSTRY

It would be as difficult for anyone to speak authoritatively, and with a single voice, for the entire insurance industry as it would be to speak for the entire medical profession. Subject to this limitation, I would summarize the industry's attitude as follows:

From what I have been able to observe, the industry feels a greater sense of urgency in finding solutions to the current health care "crisis"—*especially the problems of escalating cost*—than do many physicians. The industry has less fear of working with organizational structures than do physicians, accustomed, as it is, to corporate life.

In other respects, its situation is not unlike that of the medical profession. Some large companies, like some large medical groups, have embarked on pilot programs. Most of us, however, are still in the process of learning what the HMO is, how it will work in the "real life" world around us, and how we can, or should, relate to it.

Refresher Course for the Family Practitioner

The 1972 Refresher Course for the Family Practitioner will be offered in Iowa City February 15 to 18 under the sponsorship of The U. of I. College of Medicine and the Iowa Academy of Family Physicians. It will be at the Iowa Memorial Union.

The entire course is accredited for 18 hours. Topics to be considered on each of three days include the following:

Tuesday, February 15

What Do Cardiac Drugs Do to the Heart?
Echocardiography—A Valuable New Diagnostic Tool
Treating Facial Lacerations
Office Work-up for New-Found Hypertensive Patient
Use of Physician's Assistant
Managing Chronic Renal Disease Prior to Dialysis
Preventing Sports Injuries
Treating Migraine Headaches
New Drugs in Cancer Chemotherapy
Are Vasodilators Any Good?
What's New in Maternity Care
Dealing with Refractory Edema

Wednesday, February 16

Family Doctor as Marriage Counselor
Which Medicine for Which Arthritic?
Life-Threatening Chest Emergencies
Immunoglobulins and the "Australia Antigen"
The Thyroid Nodule
Advances in Examinations by X-rays and Isotopes
Myo-fascial Pain Syndromes
Endocrine Dysfunction
Mental Retardation
Pseudomonas and Staphylococcus in 1972
Misuse of Psychoactive Drugs
Management of Shock

Thursday, February 17

Lesions of Oral Mucous Membranes
Pediatric Immunization
Acid-Base and Fluid Therapy
Dietary Fats and Sterols
Managing Pediatric Allergies
Coronary Artery Disease
Evaluating the Endocrine Status of the Infertile Woman
Ocular Foreign Bodies and Injuries
The Oakdale Model for Family Practice
Peer Review and Medical Audit as an Educational Tool
Use of LDH Iso-enzymes in Clinical Practice
How to Help Hand Eczema

Friday, February 18

Pre-Malignant Lesions of the Cervix
Anesthetic Problems Created by Specific Medications
Deficiencies of Iron and Other Nutrients
Seat Belts and Prevention of Abdominal Trauma
Working-Up and Treating Patient with "Dizzy Spells"
Managing Epilepsy
Drugs that Affect Asthma
Prostatism
Can-Do and Can't Do of Vascular Surgery
Osteoporosis—What Is Really Helpful?
Diabetic Management

Educationally Speaking

by RICHARD M. CAPLAN, M.D.

"Is Your Continuing Education Continuing or Haphazard?"

Is your continuing education ongoing or just going on? Do you choose to invest your educational time in a systematic way, based upon a logical progression of self-assessment, readings, courses or other activities? Do you set a goal for yourself and select a meaningful assortment of educational experiences to achieve that goal? If you do, congratulations—I suspect you are a rare bird.

Most of us, I would guess, often choose which programs to attend based upon fluke events or such medical educational irrelevancies as the fame of a guest speaker, the climate and other attractions where the meeting is held, the frequency with which the subject has lately appeared in the public press, how long since my last vacation, can I be away from the office that many days, can I afford that much expense just now, etc. Our journal reading may also be often devoted to reading items we know about, or have little cause to need.

Have you ever taken the disciplined step of deciding, before you attended a meeting or read an article, just what you wanted or hoped to gain from that experience? And written it down . . . one, two, three? If you are about to hear a talk on "Management of Peptic Ulcers," do you say to yourself something like, "What I really want to find out from this speaker is which type of antacid and schedule he thinks should be used," and then make sure the speaker tells you that (seek him out afterwards and find out if he didn't happen to mention it). Deciding on at least one thing you wish to learn can almost guarantee you will never leave a meeting grumbling that you didn't learn anything.

Unless you have something you want or need to learn from a presentation, you may be better advised to use your time in other ways. Sometimes you simply want to discover (and be reassured) that you already know as much as the speaker. That seems to me a perfectly proper and important goal. But if the best of all educating consists of a "student and Mark Hopkins sitting on a log and talking with each other," it clearly implies that the student be more than just a bump on that log—that he be an active participant in the event.

Make the most of your educational time. Ask questions—set goals—in advance. *Try it!*

Dr. Caplan is Assistant Dean, Continuing Medical Education, at The University of Iowa College of Medicine.

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1972	
Jan. 5	Ophthalmology Clinical Conference
Jan. 22	Instrumentation Workshop (State Hygienic Laboratory)
Jan. 22	Pediatric Rheumatology and Cystic Fibrosis (Physical Therapy)
Feb. 2	Ophthalmology Clinical Conference
Feb. 7-10	Intensive Coronary Care Management Course*
Feb. 15-18	Refresher Course for the Family Physician
Feb. 19	PKU Guthrie Workshop (State Hygienic Laboratory)
Feb. 24	Clinical Day in Neurology*
Feb. 28	Workshop on Methyl Methacrylate and Total Hip Replacement
March 1	Ophthalmology Clinical Conference
March 18	Workshop on Cholesterol Kits (State Hygienic Laboratory)
March 22	Diet Therapy U.S.A.

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* Enrollment limited. Advance registration necessary.

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Precautions: Administer with caution to patients with incipient glaucoma, bladder neck obstruction or urinary bladder atony. Prolonged use of barbiturates may be habit-forming.
Side effects: Blurred vision, dry mouth, dysuria, and other atropine-like side effects may occur at high doses, but are only rarely noted at recommended dosages.
Dosage: Adults: One or two tablets three or four times daily. Dosage can be adjusted depending on diagnosis and severity of symptoms. Children 2 to 12 years: One half or one tablet three or four times daily. Tablets may be chewed or swallowed with liquids.

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to move,
and the Latin **sedatus,**
to calm)

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ing peeper (tree frog, *Hyla crucifer*):
small amphibian can expand
hroat membrane with air until it is
ce the size of its head.

State Department of Health

ARNOLD M. REEVE, M.D., M.P.H., Commissioner

COUNTY BOARDS OF HEALTH

In April 1969 we reported in this section on the improvement in local public health programs in Iowa. However, we indicated much more progress was still needed. Much improvement has been made since then, but as before much remains to be done.

Passage of the Local Health Act (Chapter 163, Acts of the 62nd General Assembly) in June, 1957 provided the basis for upgrading local public health activities. This act requires each county board of supervisors to appoint a five-member county board of health to include at least one physician. In addition, cities over 25,000 population were given the option of continuing a city board of health and a mechanism was provided for creation of local health districts by combination of two or more county boards of health or city and county boards. The powers of the local boards include:

(1) enforcement of state laws and regulations.

(2) passage of local rules and regulations, following public hearing, publication, and approval of board of supervisors or city council.

(3) cooperation with cities and towns in the enforcement of city ordinances.

(4) employment of necessary personnel.

(5) provision of personal and environmental services (primarily public health nursing and sanitary inspection).

(6) cooperative program development with other agencies.

(7) charging of fees to those who can afford to pay for personal services (this makes participation of nurses in the Medicare program possible, if other conditions are met).

(8) issuance of licenses or permits in specified program areas.

COUNTY	NAME
ADAMS	J. C. Nolan (C)
ALLAMAKEE	Alden F. Wiley
APPANOOSE	E. A. Larsen
AUDUBON	L. E. Jensen
BENTON	William H. Steinbeck (C)
BLACK HAWK	J. F. Gerken (C)
BOONE	Walter Dennert (C)
	Gerald H. Sutton (V)

The majority of county boards are active. About two-thirds of them meet on a regular schedule. Most others meet fairly regularly.

Of the 99 counties in Iowa, 82 have public health nursing service provided either by nurses employed by the Board of Health, Visiting Nurse Associations, or combination agencies. Over 90 per cent of Iowa's population lives in the 82 counties with this service. Today's figures compare favorably with 1965 when only 46 counties had public health nursing service.

Of the 80 county boards responding to a recent survey, 23 indicate they have adopted some rules and regulations. These cover the following areas:

AREA	NO. OF COUNTIES
RESIDENTIAL SEWAGE DISPOSAL	21
PRIVATE WATER	10
FOOD	9
HOUSING	4
MILK	4
AIR POLLUTION	4
OTHER (INCLUDING NUISANCES, SEPTIC TANK CLEANERS, ETC.)	12

An additional 22 counties are considering adopting rules and regulations in the near future.

Of the 80 counties, 21 have employed a sanitarian or other environmental health worker. Forty-eight full-time and 12 part-time people are so employed. Since the survey several additional counties have employed environmental health workers under the Emergency Employment Act.

Many Iowa physicians are making significant contributions as members of county boards of health. The following medical doctors are currently serving on county boards of health.

COUNTY	NAME
BREMER	Robert E. Shaw (C)
BUCHANAN	Nelson Hersey (C)
BUTLER	D. M. Everson
CALHOUN	James C. Constock
CARROLL	Roland Morrison
	Leo H. Kuker
CASS	John Weresh
	Einer Juel
CEDAR	Walter J. Kopsa (C)

COUNTY	NAME
CERRO GORDO	G. L. Brady
CHEROKEE	N. D. Hayden
CHICKASAW	James Carr (C)
CLARKE	James D. Kimball (C)
CLAY	Frank Edington
CLAYTON	Robert J. Merrick
CLINTON	George Aurand
CRAWFORD	M. U. Broers (C)
DALLAS	Eugene Lister
DECATUR	Norman M. Nelson (C)
DELAWARE	John Tyrrell
DES MOINES	JoEllen Hoth
DUBUQUE	Kenneth K. Hazlet (C)
EMMET	L. W. Loving (S)
FAYETTE	Scott Linge
FLOYD	Robert Huber (V)
FRANKLIN	D. K. Benge (C)
FREMONT	F. M. Ashler
GREENE	David Decker
GRUNDY	Glendon Button
GUTHRIE	Donald W. Todd (C)
HANCOCK	D. F. Shaw (C)
HARDIN	Gary P. Hayes (C)
HARRISON	Joseph Petrikonis
HENRY	Warren Scott (C)
HOWARD	D. O. Maland (C)
HUMBOLDT	Asa S. Arent (C)
IDA	Earle Stine, Jr. (V)
IOWA	Larry Miller
JACKSON	Gerhardt Grundberg (C)
JEFFERSON	Kirk Strong
JOHNSON	R. J. Hennes (V)
JONES	Otto E. Senft
KEOKUK	Lee McClenahan
LEE	Frank Harper (C)
LINN	Alfred Brendel
LUCAS	R. E. Anderson
LYON	A. C. Wubbena
MADISON	John E. Evans
MAHASKA	Robert M. Collison (S)
MARION	Kenneth Monsma
MARSHALL	Harold E. Sauer
MILLS	Rafael A. Roure
MITCHELL	Richard Boeke (V)
MONONA	H. L. Ganzhorn
MONTGOMERY	Oscar Alden (C)
MUSCATINE	R. E. Olsen
O'BRIEN	Paul Boone (C)
OSCEOLA	T. J. Carroll (C)
PAGE	Gerald Miller (C)
PLYMOUTH	Sherman E. Lindell
POCAHONTAS	James Slattery
POTTAWATTAMIE	Max Olsen
POWESHIEK	Bernard G. Wiltfang
RINGGOLD	Duane Mitchell
SAC	C. E. Lierman (V)
SCOTT	J. H. Sunderbruch (C)
SHELBY	W. S. Markham
SIOUX	A. L. Bushmer (C)
STORY	Elroy Peterson (S)
TAMA	Charles Maplethorpe, Jr. (C)
UNION	Larry W. Goetz
WAPELLO	Paul W. Scott
WARREN	L. R. Cornish
WASHINGTON	G. E. Montgomery
WEBSTER	Otto N. Glesne
WINNEBAGO	S. M. Haugland
WINNESHIEK	David W. Wright (C)
WOODBURY	James E. Reeder, Jr. (C)
WORTH	B. H. Osten
WRIGHT	M. J. Schaeferle B. L. Basinger

C = Chairman, Board of Health
V = Vice Chairman, Board of Health
S = Secretary, Board of Health

The Iowa State Department of Health and the people of Iowa appreciate the efforts of these physicians to improve public health.

Unfortunately, county boards of health are still hampered by a lack of available funds. The funds for county boards of health come from the county general fund. In 78 counties the general fund is levied at its limit and no additional funds can be made available for needed public health services. It is hoped that the legislature will pass legislation allowing a levy by the boards of supervisors for public health services.

ADDITION TO LIST OF BIOLOGICALS

Combination measles-rubella vaccine (Official name: Measles and Rubella Virus Vaccine, Live) has been added to the list of biologics available from the State Department of Health. It is available in single dose vials on the same basis as other immunizing biologics.

Field studies indicate that antibody response to each component of this combination vaccine is comparable with antibody response to the individual vaccines given separately. There is no evidence that adverse reactions to the combined product occur more frequently or are more severe than known reactions to the individual vaccines. The obvious convenience of giving already selected antigens in combined form should encourage consideration of using this product when appropriate (MMWR Vol. 20, No. 17, April 24, 1971).

Further information may be obtained by calling 515-281-3478 or by writing to the Iowa State Department of Health, Preventive Medical Service, Lucas State Office Building, Des Moines, Iowa 50319.

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Morbidity Report for November 1971

Diseases	Nov. 1971	1971 to Date	1970 to Date	Most November Cases Reported From These Counties
Brucellosis	2	26	52	Dubuque
Chickenpox	516	6207	5064	Dubuque, Linn
Conjunctivitis	55	452	332	Cherokee, Jackson
Encephalitis				
Echo 4	1	3	2	Johnson
Encephalomyelitis				
Echo 4	1	1	0	Black Hawk
Gastrointestinal				
viral infection	1066	7432	177	Iowa, Jackson, Johnson
German measles	20	720	2074	Des Moines, Polk
Gonorrhea	536	5404	4983	Black Hawk, Polk, Scott
Hepatitis				
infectious	23	280	317	Polk, Scott
serum	1	13	3	Scott
Histoplasmosis	3	19	19	Johnson
Impetigo	97	531	688	Polk, Pottawattamie
Infectious				
mononucleosis	100	991	504	Johnson
Measles	203	2564	1130	Des Moines
Meningitis				
aseptic	1	4	1	Polk
Echo 4	1	2	1	Decatur
type unspecified	1	13	15	Scott
Meningo-encephalitis				
Echo 4	1	1	0	Johnson
Mumps	842	4515	3079	Dubuque, Linn
Pneumonia	59	778	848	Scott
Rabies in animals	9	217	116	Henry, Washington
Rheumatic fever	5	51	50	Appanoose, Cedar, Polk, Sioux, Wayne
Ringworm, body	24	145	215	Floyd, Monroe
Roseola	3	28	0	Polk
Salmonellosis				
S. enteritidis	2	13	138	Linn, Osceola
S. infantis	1	4	6	Black Hawk
S. montevideo	1	2	1	Webster
S. newport	2	13	5	Dubuque, Polk
S. typhimurium	7	49	30	Scattered
S. typhimurium				
var. copenhagen	1	5	4	Story
Shigellosis				
S. flexneri	1	2	9	Johnson
S. sonnei	21	180	76	Scott
Streptococcal				
infections	514	6099	6193	Johnson
Syphilis	47	563	471	Polk, Pottawattamie, Scott
Tuberculosis, active	8	122	114	Scattered
Whooping cough	6	64	20	Buena Vista

IOWA Medical Miscellany

AMA PRESIDENT-ELECT TO IOWA . . . Carl A. Hoffman, M.D., Huntington, W. Va., AMA president-elect, is tentatively scheduled to speak to the IMS House of Delegates on Wednesday, April 26, at the concluding session of the House. Dr. Hoffman is one of two physicians serving on President Nixon's Commission on Professional Liability and has been invited to report to the IMS House on early findings of this Commission.

• • •

UCR UNDER SCRUTINY . . . Late November meeting of Society officers with Blue Shield Medical Advisory Committee afforded further opportunity to evaluate problems associated with Blue Shield UCR contract. Prior agreement, hold harmless, peer review referral, and physician and patient communications were among topics considered. Hope exists that a more rapid update of "usual" charges may be initiated in the near future.

• • •

NEED SPEAKERS, PROGRAMMING HELP . . . The Office of Continuing Medical Education at The University of Iowa College of Medicine will be pleased to provide information about potential speakers or topics for scientific meetings of county medical societies, or brief "visiting professorships" for hospital medical staffs. For further information and assistance, please contact Richard M. Caplan, M.D., Assistant Dean for Continuing Medical Education, College of Medicine, University of Iowa 52240 (Telephone: 319-353-5763).

• • •

ENCOURAGE SPONSORSHIP . . . IMS Committee on Alcoholism is encouraging county medical societies to sponsor attendance by a local sophomore or junior high school student at one of two summer workshops (at Spencer and Oakdale) on alcoholism. Letter explaining the project is being sent to county society presidents.

• • •

IRMP COORDINATOR RESIGNS . . . Harry B. Weinberg, M.D., Iowa City, has resigned as Coordinator of the Iowa Regional Medical Program to become director of medical education at Memorial Hospital in Hollywood, Florida.

RED OAK CONFERENCE . . . Health Care Delivery in Southwest Iowa is title of a special conference to occur January 28 and 29 in Red Oak. A project of the Iowa Regional Medical Program, the conference will be keynoted by L. J. Snyder, M.D., Fresno, California, chairman of the AMA Council on Rural Health. The conference will examine status of and prospects for health care in eight Iowa counties: Mills, Montgomery, Adams, Union, Fremont, Page, and Ringgold. Governor Robert Ray will open the conference which is to be held at the high school and which is open to interested persons.

• • •

NURSING STUDY . . . The appointment of a Commission to Study Nursing in Iowa has been proposed by the Iowa Board of Nursing. In expressing no objection to such a study, the Society urged it be officially represented on the commission.

• • •

STEPS DOWN . . . C. V. Edwards, Sr., M.D., Council Bluffs, has resigned for health reasons as Chairman of the Blue Shield Board of Directors and also as a member of the Blue Cross Board of Directors. Dr. Edwards is a past-president of the IMS.

• • •

INFORMATION SYSTEM . . . Society representatives are serving with others on a steering committee appointed by the Office of Comprehensive Health Planning to develop a proposal for the creation of an Iowa Health Information System. When proposal is developed it will be submitted to the various participating organizations for approval or rejection.

• • •

GOVERNOR APPOINTS . . . Three Iowa physicians are among eight appointees to an Advisory Committee on Physicians' Assistants Programs. They are John MacGregor, M.D., Mason City, Chairman, IMS Physicians' Assistants Committee; Byron Merkel, M.D., Des Moines, Chairman, IMS Medical Manpower Committee; and Thornton Bryan, M.D., Iowa City, Associate Professor of Medicine, U. of I. Advisory Committee was called for in legislation enacted in 1971 and is responsible to State Board of Medical Examiners.

(Please turn to page 18)

Pathology Capsules

by JERALD R. SCHENKEN, M.D.

DIAGNOSTIC ENZYMOLOGY IN LIVER DISEASE

Serum enzyme analysis has aided in the clinical diagnosis of liver disease. As an adjunct to such valuable studies as serum bilirubin, direct and total, serum protein electrophoresis, HAA, and prothrombin time, serum enzymes are often helpful if chosen correctly and interpreted with reasonable caution. Although many enzymes have been studied, only a few have presented sufficient specificity and sensitivity to be of value. In addition, careful attention *must* be paid to other sources of the serum enzyme abnormality than the liver. Because no single serum enzyme determination can give all the answers, it behooves each physician to develop a routine screening battery of studies which can be followed later by further confirmatory tests if necessary. We recommend serum Alkaline Phosphatase (A. P'tase), Glutamic-Oxaloacetic Transaminase (GOT), and Glutamic-Pyruvic Transaminase (GPT) with or without a Lactic Dehydrogenase (LDH) as such a battery.

Serum enzymes generally reflect hepatocellular iniury or biliary obstruction, although considerable overlap exists. One must consider the presence and degree of abnormality when developing a differential diagnosis.

1) **Enzymes reflecting hepatocellular injury:** GPT is relatively specific for hepatocellular injury and is markedly elevated with hepatitis, both infectious and toxic. GOT is also elevated under those conditions, but will also be increased with myocardial necrosis, diseases of skeletal muscles, hemolytic anemia, etc. Serum LDH elevations are also not specific for hepatocellular necrosis. While other serum enzymes, such as Ornithine Carbamyl Transferase (OCT), Isocitric Dehydrogenase (ICD), Guanase and Sorbital Dehydrogenase (SDH) are specific for hepatocellular injury, their technical difficulty and lack of improvement over the GPT and GOT have prevented them from becoming popular.

2) **Enzymes reflecting biliary obstruction:** A.P'tase is produced in the biliary ductal epithelial cells. Elevated serum levels are routinely seen with biliary obstruction whether it be common bile duct obstruction, nodular infiltrative disease of the liver or cholestatic liver disease of the "chlorpromazine" type. Alkaline phosphatase is also present in bone, placenta, and intestinal epithelium; thus, elevated serum A. P'tase may be seen with normal children and adolescents reflecting rapid bony growth, and many diseases of bone, with chronic enteritis and malabsorption, and with pregnancy. Elevations of serum Leucine Aminopeptidase (LAP) parallel quite closely A. P'tase with diseases of the liver but rarely are elevated in diseases of bone or small intestine. LAP is a *valuable* study when the reason for an elevated A. P'tase is unclear. Although 5^1-nucleotidase (5^1-N) and Gamma Glutamyl-transpeptidase (γ-GT) are also reasonably specific for hepatobiliary obstruction, they do not appear to produce more information than the LAP.

Although great overlap exists, the following generalizations are valuable as to the presence and degree of serum enzyme abnormalities.

	GOT, GPT, etc.	A.P'tase, LAP, etc.
Biliary Obstruction*	1+	2 to 4+
Cirrhosis	1+	1 to 2+
Hepatitis	4+	1 to 2+

* Includes intraphepatic cholestasis and nodular infiltrative disease.

A careful history and physical examination, analysis of various other laboratory studies, a respect for the problems of specificity encountered with serum enzymes and consideration of the great value of diagnostic percutaneous liver biopsy will usually be rewarded when these facts are considered:

1) **Many inflammatory diseases** of the liver have a cholestatic phase during which time the A.P'tase and the LAP are moderately elevated.

This series of review articles is provided by the Iowa Association of Pathologists. This first discussion has been prepared by Jerald R. Schenken, M.D. Dr. Schenken is a pathologist at Nebraska Methodist Hospital and is an assistant professor at the University of Nebraska in Omaha.

2) **Congestive heart failure** with its accompanying hemorrhagic central necrosis of the liver often produces abnormalities in liver function usually of the GOT/GPT group.

3) **Always use a battery of studies.** Liver disease is seldom clear cut; for example, chronic active or persistent hepatitis may present clinically as acute hepatitis.

4) **Cirrhosis and carcinoma** metastatic to the liver may show *no* abnormalities of serum enzymes.

For further information, the reader is referred to the references.

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3. Zimmerman, H. J., and Henry, J. B. In: *Clinical Diagnosis by Laboratory Methods.* Philadelphia, W. B. Saunders Co., 1969. p. 710-748.
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I REMEMBER WHEN—DO YOU?

When penicillin was introduced in 1942. Fleming discovered the growth-inhibiting factors of penicillin in 1928 and crude penicillin was introduced in 1929; however, a number of years elapsed before penicillin became widely used. At first penicillin powder was diluted with water just previous to injection.

A member of the Navy Medical Department at the time, I was on duty at the Base Hospital at Camp Lejeune, North Carolina. I will never forget the dramatic impact which accompanied the early use of this product. The dosage used then was 10,000 units given once daily. In two weeks the genital-urinary wards, which up to this time had been full of posterior urethritis cases, were empty. It was a very dramatic picture to watch.

I was treating women marines and did not know how to use penicillin to care for gonorrhea. I wrote two prominent heads of the gynecology departments at two medical schools. The reply in both instances was they did not know how to use it; they had had no experience. I asked a single question which now seems so basic—should this be used intra-vaginally in addition to the intra-muscular shots or just with intra-muscular injections?

—O. N. GLESNE, M.D., *Chairman, IMS Historical Committee.*

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IOWA MEDICAL MISCELLANY

(Continued from page 15)

PACEMAKER . . . A new statewide Pacemaker Monitoring System was initiated by the Iowa Heart Association and Iowa Lutheran Hospital (Des Moines) in November. By using unmodified telephone equipment, the system permits increased reliable surveillance of pacemaker batteries without an increased demand on physician time. Battery function is measurable in the fixed rate mode in less than a minute. A permanent on-going record is made and a copy is forwarded to the physician at regular intervals. There is no charge for the service. Further information is available from the IHA or Lutheran Hospital.



IOWA'S DELEGATES SERVE—Two of Iowa's delegates served as members of reference committees at the December interim meeting of the AMA House of Delegates. Herman J. Smith, M.D., Des Moines, above, served on a committee concerned with miscellaneous matters. Members were, back row, from left, Joseph Ribar, M.D., Alaska, J. E. Vaughan, M.D., California; and Bernard Pisani, M.D., New York; front row, Dr. Smith and George W. Wood, III, M.D., Maine. Below, assigned matters relating to legislation, were, standing, from left, Elmer Smith, M.D., Des Moines; Frank Holroyd, M.D., West Virginia; and Carter Smith, M.D., Section on Internal Medicine. Seated is D. N. Sweeny, M.D., Michigan.



PFIZERPEN® VK
(POTASSIUM PHENOXYMETHYL PENICILLIN)

ACTIONS: *Microbiology:* Phenoxymethyl penicillin exerts high *in vitro* activity against staphylococci (except penicillinase-producing strains), streptococci (groups A, C, G, H, L, and M) and pneumococci. Other organisms sensitive to phenoxymethyl penicillin are *Corynebacterium diphtheriae, Bacillus anthracis, Clostridia, Actinomyces bovis, Streptobacillus moniliformis, Listeria monocytogenes,* Leptospira, and *Neisseria gonorrhoeae. Treponema pallidum* is extremely sensitive. *Pharmacology:* Phenoxymethyl penicillin is more resistant to inactivation by gastric acid than penicillin G. It may be given with meals and average blood levels are two to five times higher than the levels following the same dose of oral penicillin G. Once absorbed, phenoxymethyl penicillin is about 80% bound to serum protein. Tissue levels are highest in the kidneys, with lesser amounts in the liver, skin, and intestines and small amounts in all other body tissues and cerebrospinal fluid. Only about 25% of the dose given is absorbed. In neonates, young infants, and individuals with impaired kidney function, excretion is considerably delayed.

INDICATIONS: Phenoxymethyl penicillin is indicated in the treatment of mild to moderately severe infections caused by penicillin G-sensitive microorganisms that are sensitive to the low serum levels common to this particular dosage form. Therapy should be guided by bacteriological studies (including sensitivity tests) and by clinical response. Culture and sensitivity testing are especially important in suspected staphylococcal infections because increased resistance has been reported. Phenoxymethyl penicillin is not active against penicillinase-producing bacteria.

Note: Severe pneumonia, empyema, bacteremio, pericarditis, meningitis, and arthritis should not be treated with phenoxymethyl penicillin during the acute stage.

Indicated surgical procedures should be performed.

Medical conditions in which oral penicillin therapy is indicated as prophylaxis: For the prevention of recurrence following rheumatic fever and/or chorea. To prevent bacterial endocarditis in patients with congenital and/or rheumatic heart lesions who are to undergo dental procedures or minor upper respiratory tract surgery or instrumentation.

Note: Oral penicillin should not be used as adjunctive prophylaxis for genitourinary instrumentation or surgery, lower intestinal tract surgery, sigmoidoscopy and childbirth.

CONTRAINDICATION: A previous hypersensitivity reoction to any penicillin.

WARNINGS: Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. While more frequent following parenteral therapy, anaphylaxis has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

Some individuals with a history of penicillin hypersensitivity reoctions have experienced severe hypersensitivity reactions from a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines and corticosteroids.

PRECAUTIONS: Penicillin should be used with caution in individuals with histories of significant allergies and/or asthma.

The oral route of administration should not be relied on in patients with severe illness, or with nausea, vomiting, gastric dilatation, cardiospasm, or intestinal hypermotility.

Occasional patients will not absorb therapeutic amounts of orally administered penicillin.

In streptococcal infections, therapy must be sufficient to eliminate the organism (10 days minimum); otherwise the sequelae of streptococcal disease may occur. Cultures should be taken following completion of treatment to determine whether streptococci have been eradicated.

Prolonged use of antibiotics may promote the overgrowth of nonsusceptible organisms, including fungi. Should superinfection occur, appropriate measures should be taken.

ADVERSE REACTIONS: While the incidence of reactions to oral penicillins is much less than with parenteral therapy, it should be remembered that all degrees of hypersensitivity, including fatal anaphylaxis, have been reported with oral penicillin.

The most common reactions to oral penicillin are nausea, vomiting, epigastric distress, diarrhea, and black hairy tongue. The hypersensitivity reactions reported are skin eruptions (maculopapular to exfoliative dermatitis), urticaria and other serum sickness reactions, laryngeal edema, and anaphylaxis. Fever and eosinophilia may frequently be the only reaction observed. Hemolytic anemia, leucopenia, thrombocytopenia, neuropathy, and nephropathy are infrequent reactions and are usually associated with high doses of parenteral penicillin.

HOW SUPPLIED: Pfizerpen VK (potassium phenoxymethyl penicillin) for Oral Solution. Each 5 ml. of reconstituted solution contains potassium phenoxymethyl penicillin equivalent to 125 mg. (200,000 units) or 250 mg. (400,000 units) of phenoxymethyl penicillin.

125 mg. bottles of 100 ml. and 150 ml.

250 mg. bottles of 100 ml. and 150 ml.

Pfizerpen VK (potassium phenoxymethyl penicillin) Tablets. Each tablet contains potassium phenoxymethyl penicillin equivalent to 250 mg. (400,000 units) or 500 mg. (800,000 units) of phenoxymethyl penicillin.

250 mg. bottles of 100.

500 mg. bottles of 100.

More detailed professional information available on request.

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IOWA MEDICAL MISCELLANY

EMERGENCY COMMUNICATIONS . . . A study of statewide medical emergency communications systems by the State Department of Health is in its preliminary stages. The IMS has indicated no objection to the study and has requested that a Society representative serve on the committee overseeing the study.

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ASSEMBLE MD DATA . . . The U. of I. College of Medicine is developing computerized biographical data on Iowa physicians. Info will include county of residence, population of home community, type of practice, etc. IMS will be able to utilize data.

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HEART SCREENING . . . A 1971 Heart Sound Screening Program covered 5,800 third graders (with parental consent) in seven counties: Allamakee, Clayton, Buchanan, Scott, Lucas, Wayne and Des Moines. Program in 1972 will be extended to cover Clinton, Muscatine, Audubon, Cass, Pottawattamie, Monroe, Appanoose, Louisa and Henry counties. Program is under direction of the Pediatrics Committee of the Iowa Heart Association.

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NEW APPOINTMENT . . . IMS Vice-President Rubin H. Flocks, M.D., Iowa City, has been appointed by the AMA Board of Trustees to serve on an AMA Liaison Committee on Graduate Medical Education. This new committee will confer with the American Board of Medical Specialists and the Association of American Medical Colleges. Dr. Flocks is vice-chairman of the AMA Interspecialty Committee.

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S. M. KORSON, M.D. . . . Superintendent of the Independence Mental Health Institute, presented a paper at the Fifth World Congress of Psychiatry in Mexico City in November. The paper, based on the progress made at the Mental Health Institute at Independence, is entitled, "The Evolution of a State Mental Hospital—From Custodial Care to an Intensive Psychiatric Treatment Center." Dr. Korson's paper was accepted for presentation by an international scientific commission. Approximately 55 countries were represented at the World Congress.

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WATERLOO CLINIC . . . Recent press accounts have described a proposed new multipurpose medical facility in Waterloo. Under study for better than 10 months and expected to be in the planning stages until at least October, the facility has been designated the Northeast Iowa Clinic. Newspaper reports in late November indicate 20 physicians have agreed to become associated with the clinic; 10 more are being sought before go ahead is given for final planning.

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MEDICAID SUMMARY . . . Through 10 months of 1971 Iowa Medicaid paid $19.6 million for provided services. Of this $4.5 million was distributed to medical doctors. Inpatient hospital expenditures were highest at $5.9 million. Medicaid funding is 58.07 per cent federal and 41.93 per cent state. In October, 20,092 Medicaid recipients were seen by Iowa medical doctors and 24,946 claims were filed; the average cost per claim was $18.75.

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PROFESSIONAL LIABILITY . . . Society representatives conferred in December with Mr. Bernard Hirsh, AMA legal counsel, on matters pertaining to professional liability insurance. Coverage, while costly, is readily available now, according to Hirsh. He advised of more state involvement in group coverage, with approximately half of the state medical societies sponsoring some type of program.

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DEDICATE HOSPITAL . . . New $5.5 million St. Anthony Regional Hospital in Carroll was formally dedicated in November. The new facility replaces a 66-year-old hospital which has been razed.

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DRUG ACTION . . . The Black Hawk County Medical Society recommended in November that its members stop or curb the prescribing of amphetamine drugs. This policy action of the county society is reportedly the first of its type in the midwest.

• • •

RED MEASLES . . . A November outbreak of red measles in Des Moines County prompted a fast and ambitious immunization program to vaccinate 6,000 children in kindergarten through fifth grades. Over a seven-week period prior to the immunization effort, 187 cases of red measles were recorded in Des Moines County.

• • •

MISSIONARY SERVICE . . . C. Robert Osborn, M.D., Dexter, served in Haiti during November as one of two physician members of a medical missionary team.



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SCIENTIFIC ARTICLES

Diuretics and Hypertension

WALTER M. KIRKENDALL, M.D. and
MAHER AZER, M.D.
Iowa City

A DISCUSSION OF THE CLINICAL USE of diuretics in hypertension must center around the use of the benzothiadiazine diuretics. A new concept in the management of hypertension was introduced in 1958 with the discovery of the effectiveness of thiazides as oral hypotensive agents.

According to Hollander and Wilkins,[51] Freis and his colleagues[32] and others,[7, 45] the daily administration of oral chlorothiazide will reduce elevated blood pressure. Conway[11] found that a reduction in blood pressure (average mean 26/17) could be achieved in 66 per cent of patients with varied types of hypertension. In fact, when the diastolic blood pressure was 110, a diastolic blood pressure of under 90 mm of Hg could often be achieved.

Of equal importance, according to Hollander and Wilkins,[51] Freis and Wilson[32] and others,[44, 89] thiazide potentiate the hypotensive effects of the commonly used hypotensive drugs, thus decreasing their doses and minimizing their side effects. Addition of thiazide enhances the effects of reserpine, hydralazine, ganglion blockers,[22, 53] guanethidine, pargyline and methyldopa.[8, 54, 101] Thiazides also augment the hypotensive effects of surgical procedures such as sympathectomies. Occasionally a patient may have a marked reduction of blood pressure after an ineffective sympathectomy with the addition of as little as 125 mg. of chlorothiazide every other day.

The chronic administration of all benzothiadiazine diuretics, singly or in combination, is an effective means of controlling essential hypertension and the secondary forms of hypertension secondary to renal artery stenosis, parenchymal renal disease, high output labile hypertension, hypertensive cardiovascular disease with pregnancy[38, 39] and Cushing's syndrome. They are relatively ineffective in patients with primary aldosteronism, pheochromocytoma, and coarctation of the aorta.

Other diuretics have been found to share these antihypertensive properties with the thiazides. Parenteral mercurials[56, 70] and oral chlormerodrin[66] have been found to possess antihypertensive properties. Furosemide,[4, 20] ethacrynic acid,[82, 17, 23, 55] spironolactones,[46, 57, 62, 102] triamterene[19] and amiloride have hypotensive effects and/or may enhance the effects of the antipressor drugs.

Diuretics, also, can play a role in the man-

Dr. Kirkendall concludes his service this month as professor of medicine at The U. of I. College of Medicine. He is joining the faculty of the University of Texas College of Medicine. Dr. Azer is a fellow in The U. of I. College of Medicine. The work reported in this paper was done in the Renal-Hypertension-Electrolyte Division of the College and is supported by grants HE5367 and HE05918, National Heart and Lung Institute, National Institutes of Health.

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agement of hypertensive crisis. A non-diuretic thiazide compound, Diazoxide,[77, 104, 105, 64, 35, 36] is a potent hypotensive agent for the treatment of hypertensive encephalopathy though its hyperglycemic effects have limited its popularity. Furosemide and ethacrynic acid enhance the effects of other parenteral hypotensive agents used in such emergencies.[29]

MECHANISMS OF ACTION

The mechanism of action is still unknown. Investigations and speculations have centered around three theories:

a) *reduction of plasma volume and extracellular volume;*

b) *decreased vascular reactivity to altered sympathetic nervous stimuli;*

c) *direct effect on the blood vessels.*

a) Reduction of Plasma Volume and Extracellular Volume

The acute administration of thiazides to hypertensive patients has been associated with a number of hemodynamic and biochemical changes. Saluresis causes a reduction in total body sodium content.[1, 37, 43] A decrease in plasma volume is observed.[50, 65] Freis *et al*[33] demonstrated that plasma volume replacement tended to restore the blood pressure and responsiveness to norepinephrine to normal. But Hollander *et al*[49] found that replacement of plasma volume produced only a partial restoration of blood pressure in hypertensives treated with thiazides. A reduction in extracellular fluid volume[15, 43, 99, 103] has also been noted (and according to Tarazi *et al*[91] hypertensive patients have a higher extracellular fluid volume). Body weight is reduced. The cardiac output,[103, 15, 65] glomerular filtration rate and renal blood flow[22, 34, 97] are decreased. A decrease in blood pressure usually occurs associated with an increase in peripheral vascular resistance due to increased sympathetic outflow. In fact, a decrease in cardiac output and an increase in peripheral vascular resistance occur occasionally before any diuretic or hypotensive effect is seen.[16, 75] Plasma renin activity is increased.

During chronic administration, within one to four weeks[18, 44, 106] and in less than six weeks, the exchangeable sodium content rises back to the pretreatment level in spite of the continuing diuresis.[43, 65, 95] Also, plasma volume and extracellular fluid volume tend to return to normal.[18, 44, 106] Body weight also increases towards pretreatment level as does the cardiac output.[1, 94] Peripheral vascular resistance is decreased,[15] plasma renin activity decreases, and glomerular filtration rate persists at a low level[14, 24] but the blood pressure still remains lowered.

Thus, it was believed for some time that all of the initial hemodynamic effects of thiazides were lost, but its hypotensive effect persisted.

Recently, evidence has accumulated that minor but definite fluid and sodium depletion persisted in patients under chronic thiazide therapy.

Conway[15] and Lowers observed that body water remained diminished during chronic administration of thiazide although the extracellular fluid volume had returned almost to normal. Winer[108] found a persistent weight reduction of 1.2 kg, a diminished extracellular fluid volume of 1.1 liters, an average drop of 137 mEq in the total exchangeable sodium (while serum sodium was normal) and a decrease in plasma volume of about 115 ml or 6 per cent in patients on chlorothiazide therapy for six to eight weeks.

Tobian *et al*[89] demonstrated a higher juxtaglomerular count in rats treated with chlorothiazide chronically which suggests slight volume deficit and an increased renin activity.

Winer[110, 108] felt that the enhanced sodium excretion by thiazides is a key part in their antihypertensive action. He observed that a 20 gm salt diet could abolish the antihypertensive action of thiazide, but not when 6 or 12 gm were used.

Recently Tarazi *et al*[94] found that the discontinuation of thiazide therapy was associated with an increase in body weight, a rise of plasma volume and extracellular fluid space volume, a fall in plasma renin activity, a gradual rise of the blood pressure to pretreatment level within one to three weeks.

The evidence now supports the view that salt and water depletion occur with chronic thiazide therapy, and they contribute to their hypotensive properties. This does not exclude other equally important thiazide effects that might share in contributing to their antipressor activity.

b) Decreased Vascular Reactivity to Sympathetic Stimuli

Chlorothiazide administration has been found to attenuate the vascular reactivity and the rise in blood pressure ordinarily induced by the infusion of norepinephrine in normotensive and in hypertensive human beings[63, 68] and in dogs.[25, 26, 47]

Also, paradoxically, the blood flow to the peripheral tissues is increased when norepinephrine is used in the presence of thiazides.[30]

The cardiac reflexes are also blunted. According to Freis *et al*,[33] Eckstein *et al*[25, 26, 27] and Feisal *et al*,[30] norepinephrine, in the presence of thiazides, led to a rise in cardiac output rather than a fall and no slowing of the heart rate occurred.[30, 33, 25, 26, 27]

A few conflicting effects also have been reported. According to Hollander *et al*[49] a decreased sensitivity to norepinephrine was only demonstrated after four weeks of thiazide therapy but not after eight weeks. Also, the digital vascular reactivity was diminished after two weeks of thiazide therapy in hypertensives but was increased in normotensives.[69]

Thiazides may have a direct influence on the sympathetic nervous system.[74] According to Aoki *et al*,[2, 3] thiazide treated rats have almost a 50 per cent increase in the traffic of nerve impulses along the lumbar sympathetic chain. They observed also that supramaximal stimulation of the lumbar sympathetic nerves was associated with a decreased pressor response. It was suggested that thiazides may reduce the amount of norepinephrine liberated at the nerve terminals by neurogenic stimuli.

c) Direct Effect on the Blood Vessels

Thiazides may have a direct influence on the vascular system. A point in support of such a hypothesis is the mode of action of diazoxide. This drug has an instantaneous hypotensive effect, which occurs principally when the drug is rapidly injected intravenously. Unlike other thiazides, it leads to a decrease in peripheral vascular resistance, an increase in cardiac output and glomerular filtration rate, and retention of salt.[64, 77, 104, 105, 35, 36]

Tobian *et al*[85, 86, 93, 87, 88] and Vick *et al*[95] have demonstrated that hypertensive rats have a higher sodium and water content in their vessels. Although several investigators[89, 109] have not demonstrated a reduction in the salt and water content of the vessels, Beaver[6] found a decrease in the sodium content of the aortic walls of thiazide treated rats.

Bohr *et al*[9] and Mallov[71, 72] demonstrated that vessels of hypertensive made rats react differently from those of normal rats and it is possible that thiazide might help correct such aberrant reactions.

There is convincing evidence that chronic administration of thiazide diuretics will chronically reduce total body sodium content, plasma volume and body weight while enhancing plasma renin activity. The relative importance of this effect of the thiazides in producing their antihypertensive effect has not been finally assessed but it would appear that the effect on sodium and water metabolism is a very important mechanism by which thiazides create their blood pressure lowering effect. The hypotheses concerning the effect of the thiazides on autonomic function and to a certain extent on vascular smooth muscle are based on indirect observations. At the moment there is no method to determine their relative importance in the antihypertensive effect of the thiazides. It is of interest that the thiazides may have a unique effect in the hypertensive subjects. Despite the fact that all hemodynamic and biochemical changes usually found after thiazide administration are seen in the normotensive persons, little or no hypotensive effect is seen. The evidence to date on this issue has not finally excluded the possibility that this is the result of a quantitative rather than a qualitative difference in the action of these compounds.

MODE OF ACTION OF OTHER DIURETICS

Although thiazides have been the subject of intensive investigation to unveil their mechanism of action as hypotensive agents, little has been done to study the mode of action of the other diuretic agents.

The hemodynamic changes of furosemide in hypertensive subjects were comparable to those of the thiazides.[20, 21] While 2 gm of the thiazides are considered to be the maximally effective doses, 120 mg of furosemide has been found to be the minimally effective doses as sole hypotensive agents,[20] but lesser doses were found to be effective as adjuvants to other hypotensive drugs.[61] We are not aware that the hemodynamic changes induced by the other

diuretics have been studied in hypertensive individuals except in acute situations.[20, 76] It has been found that the hypotensive effect produced by mercaptomerin or spironolactone could not be corrected when blood volume was restored and the negative sodium balance corrected.[51] Mercurials and acetazolamide were found to decrease the reactivity of the vascular bed to pressor substances.[18, 100]

It seems likely that the more potent diuretics as mercurial, furosemide and ethacrynic acid act mainly through fluid and sodium depletion to lower blood pressure although other mechanisms have not been studied to any extent.

The spironolactones, being aldosterone antagonists, have a different antihypertensive mechanism. It is probable that the responders to spironolactone represent a special group in whom aldosteronism is an important factor in the pathogenesis of their hypertension.

Triamterene is an even weaker antihypertensive when compared to thiazides or spironolactones and its mechanism of action is unstudied.[84, 19]

SIMILARITIES AND DIFFERENCES IN ACTION OF THIAZIDE DIURETICS

It is generally agreed that all thiazide diuretics have a similar mechanism by which they lower blood pressure. In addition, all have similar dose response curves, and all have virtually the same hypotensive efficacy with optimal dosage. There are now well controlled studies which demonstrate that the efficacy of the thiazide diuretics persists and little tolerance develops to their hypotensive effect. The duration of action of various thiazide diuretics varies considerably and seems to be based upon their dissociation constant and differential excretion.

ADVERSE EFFECTS OF THIAZIDE DIURETICS

Many toxic and side effects have been noted following the use of the thiazide diuretics. The majority of adverse effects are seen as the result of the potency of these agents. Included in this group are hypokalemia, hyponatremia and dehydration, hypotension, tachycardia, rhythm disturbances, weakness, dizziness, drowsiness, paresthesias, muscle cramps, fatigue, hypochloremia, and azotemia. Hyperuricemia with precipitation of clinical gout and hyperglycemia and glycosuria are often seen after the administration of thiazides. Less common are toxic reactions such as the development of thrombocytopenia, leukopenia, granulocytopenia, jaundice, purpura, photosensitivity, maculopapular drug eruptions and cutaneous vasculitis.

Of these effects hypokalemia, hyperuricemia and hyperglycemia have been the subject of extensive investigation, and their development limits the use of the thiazides.

HYPOKALEMIA[13, 28, 59, 65, 40, 96]

Hypokalemia is induced by most diuretics to a variable degree except those which interfere with the formation or action of aldosterone. At least 25 per cent and perhaps the majority of patients who take daily doses of potent thiazides have a reduction in serum potassium.

Hypokalemia is produced by thiazides for several reasons. These agents increase the sodium load to the distal nephron and allow for enhanced exchange of sodium for potassium in many patients. In addition, many of the thiazides as well as furosemide and acetazolamide possess carbonic anhydrase inhibiting activity which enhances the potassium loss. Also, the majority of potent diuretics directly or indirectly stimulate activity in the renin-angiotensin-aldosterone system.

Several theories, some with experimental support, have been presented to explain the mechanism by which diuretics lead to the release of renin. It has been postulated that a reflex mechanism is triggered through activation of the renal nerves and neurotransmitters secondary to changes in blood volume, plasma volume or intra-renal vascular flow. It has also been postulated that the increased delivery of sodium to the distal tubules provoked by diuretic agents might increase the delivery of sodium to the macula densa and hence stimulate renin release. A third theory has been that renin release may be inversely proportional to the intra-tubular sodium load of the distal tubule and accordingly to the macula densa. It is known that hypokalemia itself can provoke renin release.

If the serum potassium falls below 3.5 mEq/L, corrective measures are in order. It is wise at this point to reconsider the possibility of primary aldosteronism and indeed reconsider the need for chronic diuretic therapy. If such therapy is indicated, most physicians attempt

to counter the low serum potassium first by adding potassium containing foods in the diet while reducing the sodium content. If this measure is ineffective, potassium in the form of chloride salt is given orally up to 80 mEq/day while maintaining sodium restriction. Often all of these measures are ineffective in raising the serum potassium level and one must resort to agents which block potassium exchange in the distal portion of the nephron such as the spironolactones and triamterene.

HYPERGLYCEMIA[51, 92, 5,48, 60, 61, 52, 41, 79, 111]

Thiazide diuretics, as well as the non-diuretic thiazide diazoxide, influence carbohydrate metabolism in some normal and diabetic individuals. The occurrence of diabetes under the influence of these compounds and its regression upon their discontinuation has been reported on several occasions. Though hyperglycemia does occur its incidence among patients under diuretic therapy has not been found to be significantly greater than among the general population.

The mechanism by which thiazides impair carbohydrate metabolism has been studied by a number of investigators. There is evidence that the peripheral utilization of glucose is impaired in the presence of these compounds. In addition, a number of investigators have also found that serum insulin does not rise appropriately in response to a carbohydrate stimulus, and, therefore, have concluded that thiazides have a direct inhibitory effect on the Islet cells of Langerhans.

Whatever the mechanism, the hyperglycemic state caused by a thiazide is reversible with discontinuation of the compound. If this complication occurs, it is appropriate to repair body potassium deficits and if hyperglycemia persists, reconsider the need for the use of the thiazides. Those patients in whom hyperglycemia persists and in whom thiazides are needed, respond appropriately to the usual antidiabetic agents.

HYPERURICEMIA[112, 11, 81, 83, 78, 73]

Virtually all diuretics influence plasma levels of uric acid and its urinary excretion in a dual manner. Acute administration of thiazides, mercurials, furosemide or ethacrynic acid increase urate excretion probably through inhibition of tubular reabsorption and then within the second hour after administration, decrease urinary uric acid excretion. For the most part, chronic administration of all diuretics is accompanied by hyperuricemia and acute attacks of gout have been encountered. There is a correlation between hyperuricemia and sodium excretion, the greater the sodium loss the higher the level of plasma uric acid.

Normally 98 per cent of filtered uric acid is reabsorbed and at least 80 per cent of the excreted urate is the result of tubular secretion. Accordingly, hyperuricemia can result either from increased reabsorption or diminished secretion. Demartini and Cannon[24] have suggested that diuretics inhibit tubular secretion of uric acid. Suki *et al*[80] and more recently Steele and Oppenheimer[81] have concluded that increased tubular reabsorption is the major factor leading to hyperuricemia. Extracellular and plasma volume contraction induced by diuretics enhance tubular reabsorption of urate and correction of the volume defect even under continuing diuretic therapy prevents hyperuricemia.

If a patient under diuretic therapy develops clinical gout, he responds appropriately to symptomatic therapy with colchicine or butazolidine, and uric acid excretion can be enhanced with probenecid. In addition, hyperuricemia can be prevented by interference with the formation of uric acid by the use of the enzyme inhibitor, allopurinol. A more difficult problem is the treatment of the patient without clinical symptoms of gout who has hyperuricemia and who needs a diuretic agent. One is often confronted with the problem of whether to treat a certain serum value in the absence of other signs. In patients with hyperuricemia it is important to carefully monitor kidney function to avoid unrecognized gouty nephropathy. In addition, it is common for physicians to give either probenecid or allopurinol if the serum uric acid exceeds 12 mg per cent. The wisdom of this treatment has not been proven since such treatment has not been evaluated by well controlled clinical trials.

ADVERSE EFFECTS OF OTHER DIURETICS USED IN HYPERTENSION TREATMENT[12, 58, 60, 61, 40, 42, 67, 98]

Most diuretics will produce similar biochemical and cardiovascular effects to those of the thiazides. The unique complication of spironolactone and triamterene is the production of

hyperkalemia, particularly when potassium intake is high or if both drugs are used simultaneously. Both furosemide and principally ethacrynic acid have been noted to cause deafness when given in high doses in patients with impaired kidney function. Carbonic anhydrase inhibiting compounds, particularly dichlorphenamine, may produce symptomatic metabolic acidosis. Triamterene as well as a number of other diuretics may increase blood levels of urea nitrogen and creatinine.

SUMMARY AND CONCLUSIONS

The thiazide diuretics are cornerstones in the therapy of patients with hypertension. Their long term, regular effectiveness as well as their ability to enhance the effect of antihypertensive compounds which act either directly on vascular smooth muscle or through the sympathetic nervous system render them invaluable. Other diuretics, particularly more potent oral ones such as furosemide may be equally effective when given in adequate doses. Ethacrynic acid, because of its tendency to produce gastrointestinal tract symptoms, is less valuable as a long term therapeutic tool. Both furosemide and ethacrynic acid have the ability to maintain glomerular filtration rate in the presence of kidney disease and hence may have special value in those patients with hypertension and marked renal impairment.

Diuretics produce their effects by a reduction of plasma and extracellular fluid volume, and by mild sodium depletion. Their ability to decrease the vascular reactivity to sympathetic stimuli and to change the electrolyte composition of vascular smooth muscle may be important in the antihypertensive effect.

Although diuretic compounds have extended our ability to treat hypertension effectively, their adverse reactions including hypokalemia, hyperuricemia, and hyperglycemia make it unwise to use them in all patients with minimally elevated blood pressure. Present evidence supports the view that diuretics are of great value in the treatment of patients with moderately severe and severe hypertension. Evidence is not conclusive that the benefit from the use of these compounds in persons with mild or labile hypertension outweighs the inconvenience, cost and potential hazards of treatment.

REFERENCES

The references noted in this article are available on request from either the authors or the JOURNAL OF THE IOWA MEDICAL SOCIETY.

AMA Statement on Price Guidelines

Following are excerpts from the statement released by the AMA within hours of the December 15 announcement by the government of the health providers' price guidelines.

"The American Medical Association supports President Nixon's efforts to curb inflation and to hold price rises to an average of 2.5 per cent across the board.

"While we urge physicians to act in accordance with the regulations, we feel compelled to point out certain discriminatory aspects to them.

"Though we have not yet seen the official regulatory language, the guidelines for physicians' fees appear to single out health care providers for some regulatory controls that are not applied to other providers of services. It violates the principles of equal treatment and fair play to impose special burdens on small segments of the population—in this case physicians, dentists, osteopaths and other non-hospital providers of health services. Generally all providers of services are permitted to pass through documented, legitimate increases in the cost of doing business. Except for very large corporations, advance approval is not required.

"However, the guidelines as we understand them provide no avenues for relief for physicians, osteopaths, dentists, etc., whose increased costs require more than a 2.5 per cent adjustment in fees. Hopefully such relief may be available in the official regulations. But at best physicians whose costs may justify increases over the 2.5 per cent guideline will have to apply for approval in advance, while providers of services outside of the health care field are subject to no similar restraint. We question why such requirements are imposed on physicians, especially when physician income accounts for only 13 cents of the health dollar.

"There is thus every indication that administration of the over 2.5 per cent regulation will have a discriminatory effect. Most important of all, it remains to be seen how this aspect of the regulations will affect services to patients. If applied too rigidly, the regulations could stifle innovative practices and hamper the development of improved patient care. Furthermore, such controls could work hardship on the one million-plus people employed in health care, denying them opportunities for modest wage increases. . . ."

Differential Diagnosis—
Emergency Care of the Stroke Patient

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A STROKE MAY BE DEFINED as a rapid onset and evolution of neurological symptoms which reach their peak of severity in seconds, minutes, or hours, and, if the attack is not fatal, partial or complete recovery may occur in hours, days, or weeks. The common denominator of all strokes is the *abrupt onset* of focal neurological deficit.

Stroke is the third leading cause of death and morbidity in the United States. Eleven per cent of all deaths in the United States are due to stroke and it is the cause of 200,000 deaths per year. If we include all those who die with stroke, as well as those who die of stroke, the total places stroke second in causes of death. Two million people in the United States are incapacitated by stroke.

The prognosis in stroke is grave. Twenty to twenty-five per cent of the patients die of the first attack with emboli or thrombosis, and a higher percentage of those with hemorrhage die. The mortality rate in patients over 70 is greater than 50 per cent. The mortality rate is greater than 50 per cent if there is a marked neurological deficit, coma, or extensive vascular disease. The mortality rate is very high in patients with brain stem involvement after basilar artery occlusion, especially if there is quadriplegia.

Twenty per cent of the survivors of stroke have another cerebral vascular accident in 24 to 48 months. However, the most significant life limiting factor of survivors of stroke is cardiovascular disease. Fifty per cent of the patients surviving stroke die later of myocardial infarction or cardiac failure. Twenty-two per cent of patients with cerebral infarction due to emboli have a recurrence of their infarction. Fifty per cent of patients having a stroke are dead in five years.

When we are presented with a patient with a probable stroke we must ask ourselves three questions:

1. *Is the illness truly a stroke?*
2. *Is it hemorrhagic or non-hemorrhagic?*
3. *What is the specific cause?*

The answer to the first question depends clinically upon the temporal profile of the developing disease. With stroke, there is a *sudden* development of disability referable to the central nervous system, followed by a rapid progression to maximal neurological dysfunction, followed in time by improvement or stabilization. Immediately we must rule out other acute causes of central nervous system dysfunctions such as diabetic coma, hypoglycemic reactions, uremia, labyrinthine disorders, and acute exacerbations of chronic central nervous system disease.

We must consider the etiology of the stroke. Sixty per cent of strokes are due to thrombosis. Twenty to 25 per cent are due to hemorrhage. Five per cent are due to emboli, and 10 per cent are due to subarachnoid hemorrhage.

With further progression of our knowledge we must also consider strokes in a different way, according to the onset and progression:

1. *Minor stroke or transient cerebral ischemia, or transient ischemic attack.*
2. *Evolving or progressing stroke.*
3. *The completed stroke, or major stroke.*

This clarification is important because of the implications for treatment. The anticoagulants or surgery will prevent the transient ischemic attacks. The anticoagulants are the only medi-

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Dr. Spellman is in the private practice of internal medicine in Sioux City. This paper was presented at a regional stroke symposium sponsored by the Northwestern Stroke Program, Iowa Heart Association.

cations effective in progressing stroke and should be used, although the results are somewhat disappointing in that the progression of all strokes is not prevented. The anticoagulants are not indicated and are probably contraindicated in the completed stroke.

When considering anticoagulation, one should do a spinal tap immediately. This will rule out most cases of hemorrhage and the spinal fluid examination will aid in ruling out other central nervous system abnormalities as expanding intracranial lesions, and infections. In stroke, the spinal fluid examination may be entirely normal or there may be a slightly elevated protein or cell count. The fluid will often be xanthochromic or bloody in cerebral hemorrhage.

We will consider five categories of cerebral vascular disease: (1) *The transient ischemia attack:* This must be recognized and treated either with anticoagulants or surgery, since the transient ischemic attack often heralds a major stroke and the person is in immediate danger of such an occurrence. If the lesion is located where it is amenable to surgery, surgery may cure this form of stroke. If the patient is not a surgical candidate, or if the lesion is located where it is not accessible to surgery, the anticoagulants will effectively protect the patient. One third of the patients with transient ischemic attacks may spontaneously recover. One third will develop a major stroke and one third may stay the same if they are untreated. Actually the percentage of those that may develop stroke is 40 per cent. If the patient is treated with anti-coagulants, only 10 per cent will develop a major stroke and 90 per cent will be protected. (2) *Cerebral infarction with thrombosis* is the most common form of stroke constituting 60 per cent or more. (3) *Cerebral emboli* comprise five per cent of the cases, (4) *Intracerebral hemorrhage* accounts for 25 per cent of the patients, (5) *Subarachnoid hemorrhage* occurs in 10 per cent of the stroke patients.

Other vascular conditions are important and must be ruled out, but these do not fulfill the criteria of stroke. The extradural hematoma almost always follows trauma and is accompanied by a skull fracture. The middle meningeal artery is the site of the bleeding. The typical clinical picture is that of the patient receiving trauma and being knocked down and perhaps momentarily dazed, progressing through a lucid interval which may last minutes to days, and then lapsing into a progressively deepening stupor and unconsciousness.

The subdural hematoma usually also follows trauma. However, it may also be a complication of a blood dyscrasia. Typically, the acute subdural hematoma follows trauma with a period of unconsciousness, a lucid interval, followed by a period of unconsciousness and often times accompanied by a dilated pupil or a hemiparesis. The chronic subdural hematoma may be very difficult to diagnose because it is insidious in onset. It frequently occurs in older people who may have either ignored or forgotten the trauma. The symptoms may follow the trauma by a number of days or weeks, and sometimes years. If the history is obtainable, the patient usually has been unconscious. A lucid interval follows and later dizziness, recurrent headache, vomiting, drowsiness, lack of concentration, abnormalities in the state of consciousness, and even convulsions occur. The development is slow and progressive, but is irregular and variable and this variability is the outstanding feature.

Hypertensive encephalopathy has to be differentiated from stroke. This is always associated with malignant hypertension with a neuroretinitis and retinal edema and cerebral damage. The pathophysiology is acute edema and cerebral ischemia. The clinical picture consists of headache, vomiting, convulsions, impaired vision, and drowsiness. It may resemble a transient attack.

The areas of the brain most often affected by stroke are the areas farthest removed from the heart, when the blood flow in the internal carotid is momentarily interrupted or reduced below a critical level.

The clinical features of cerebral thrombosis consist of stepwise, fluctuating, or sudden onset of neurological deficit unrelated to activity and often times occurring during sleep. The patient may recover in days, weeks, or months. He usually has evidence of atherosclerosis in the retinal vessels, the coronaries, or the peripheral vessels. The blood pressure may or may not be elevated. The patient often will have had a previous history of a cerebral vascular accident. Convulsions are frequent and confusion is common. The spinal fluid examination may be normal.

In contrast, the patient with intra-cerebral hemorrhage will present with rapid progression in his neurological deficit even to coma. Intra-cerebral hemorrhage is preceded by a headache, nausea or vomiting, and most often occurs during activity. Death is frequent and, if the patient survives, recovery is protracted. Hypertension is almost always present, as are hypertensive and arteriosclerotic cardiovascular disease. The patient has a stiff neck. He rarely has a convulsion. The cerebral spinal fluid often is bloody or xanthochromic and under increased pressure. There may be a contralateral shift of the pineal.

Scaffmas recently studied a number of patients with cerebral hemorrhage and cerebral thrombosis to see if he could determine unequivocal signs of each. He listed the unequivocal signs of intracerebral hemorrhage as the onset of fatal cerebral vascular accident after a dispute, a hyper-acute onset, hypothermia, pulse rate below 60, decerebrate spasm, bilateral absence of the corneal reflexes, miosis with absence of pupiliary reaction, and bloody cerebral spinal fluid. Less certain indications of hemorrhage were a history of cerebral vascular accidents in relatives of the patient, onset of the fatal cerebral vascular accident between noon and 6:00 p.m., onset while a patient was at work or on the street, vomiting at the onset, critical state in early clinical stage, nuchal rigidity, mydriasis with absent pupillary reactions, disorders of the respiration, diastolic blood pressure over 100; leucocytosis, glycosuria, and xanthochromia.

The unequivocal indications of thromboses with infarction were the history of multiple previous cerebral vascular accidents and the onset of CVA during or following a medical procedure. The less certain indications of thromboses were CVA between midnight and 6:00 a.m., the onset in the morning on arising, or shortly afterwards, subacute onset, convulsions at the onset, relatively favorable state in the early clinical stage, and colorless cerebral spinal fluid.

Cerebral embolism is usually associated with cardiac disease in adults, rheumatic heart disease, cardiac arrythmias, subacute bacterial endocarditis, or silent myocardial infarction. It also occurs with fat or air emboli. There is a sudden onset of maximal deficit not associated with prodomata or activity. The recovery is often rapid in a single episode. Convulsions are infrequent. The cerebral spinal fluid may be normal or have some red blood cells.

Subarachnoid hemorrhage occurs most frequently between the ages of 20 and 40 years of age. There is a sudden onset of unconsciousness preceded by headache, stiff neck, nausea, and vomiting. It is often associated with activity. It rarely causes death in the first episode. There is recovery in days or weeks. Coma is common and nucal rigidity is almost always present. Convulsions are infrequent. There are non-localized or bilateral neurological findings. The spinal fluid is bloody with increased pressure.

The manifestations of any stroke are due to the vessel involved and the amount and part of the brain involved. We are able to classify stroke by the neurological findings and determine which blood vessel is occluded.

In internal carotid artery occlusion, there is a contralateral weakness with numbness or dysphasia, blurring of vision, or blindness.

In middle cerebral artery occlusion, there is contralateral mono- or hemiparesis, numbness or tingling, arm involvement greater than leg involvement, dysphasia, and homonymous hemianopsia.

Patients with anterior cerebral artery involvement will often complain of pain in the front and side of their head. There is weakness and numbness of the opposite leg and reflex incontinence and confusion.

Posterior cerebral artery occlusion produces a homonymous hemianopsia, scintillating scotomata, and disturbances in visual learning and recognition.

Thrombosis of the basilar vertebral artery system produces a great variety of effects because so many structures are situated at the base of the brain. The patient often has dizziness and vertigo, mono-, hemi-, or quadriparesis, and numbness of either side of the body. The symptoms may alternate from one side of the body to the other. Visual and cerebellar symptoms are frequent with diplopia, blurring of vision, scotoma and ataxia. Dysphagia, dysarthria, deafness, temporary confusion, and difficulties in ocular movements are frequent. Loss of memory or unconsciousness may occur. The vegetative nervous system may be involved. The difficulties are often bilateral in basilar vertebral artery disease and are unilateral in carotid artery involvement. Patients

with basilar-vertebral artery disease have difficulties with respiration. A lesion deep in the hemisphere in the upper brain stem produces Cheyne-Stokes respiration with the waxing and waning of the breathing with a regular sequence of apnea followed by hypernea. Periodic breathing consists of a less regular periodicity of the breathing and is due to a lesion in the mid brain stem. Apneustic breathing consists of a pause at the end of each inspiration and sometimes after each expiration with irregular shallow breathing alternating with irregular deep breaths and periods of apnea. This type of breathing is caused by a lesion in the pons. Irregular ataxic breathing is caused by a lesion in the medulla.

Syndromes of various types have been described for specific areas and specific vessels of the brain involved. These are outlined very well in the text books and a person may identify the exact vessel involved often times, although there is some overlapping.

The treatment of stroke should be considered in three parts: *the treatment of the acutely ill or comatose patient; specific medical therapy; and surgical treatment.*

ACUTELY ILL PATIENT

The treatment of the acutely ill or comatose patient must be directed at preventing any further deterioration of the patient's condition. As soon as the patient is seen, an adequate airway must be established with either an endotracheal tube or a tracheostomy. Suctioning of secretions and positioning to prevent aspiration must be carried out.

The patient must be immediately checked for trauma, blood loss, and fulminating sepsis. The acute metabolic conditions that cause difficulties must be ruled out and blood urea nitrogen, sugar, and electrolytes should be immediately determined.

If necessary, the respirations must be supported with ventilating machines and oxygen. The blood pressure must be controlled. If the blood pressure is low, levophed must be given. If the blood pressure is elevated, it must be controlled with one of the quick acting drugs such as reserpine, hydralyzine or methyldopa. Hopefully we will soon have diazoxide available, which promises to be the most effective drug for the rapid lowering of blood pressure. The fluid and electrolyte balance must be stabilized. Bowel and bladder management with indwelling catheter must be instituted if necessary. Pulmonary complications and pressure sores must be prevented by frequent turning of the patient, positioning the patient so he may be able to get rid of secretions, and padding the areas of contact between bony prominences and the bed. A foot board should be used to prevent foot drop. Sand bags should be positioned to prevent external rotation of the hips. A hand roll should be used to support the paralyzed hand in a position of function, and pillows should be placed in the axillae to prevent adduction deformity of the arms. As soon as the patient's condition permits, passive physiotherapy should be carried out at least three times daily and active physiotherapy instituted as soon as possible.

SPECIFIC MEDICAL TREATMENT

Specific medical treatment may be considered in two parts. Anticoagulation is very helpful and effective in treating the transient ischemic attacks and in prevention of further emboli in cases of cerebral embolism. In developing stroke, it may prevent propagation of the thrombus which will occlude more vessels in the brain. It is hoped that the progression of the developing stroke may be stopped. The anticoagulants are not as effective as we wish in this regard and their use has been somewhat disappointing but they should be used since this is the only medication that may prevent the further progression of the stroke. If one is certain that there has been no hemorrhage, heparin should be used and the patient placed on dicumerol later. Anticoagulants, also, will prevent thrombi from forming in the veins in the patient who is confined to bed. Anticoagulants are of no value and are dangerous in patients with completed stroke.

The vasodilating drugs are not effective. Carbon dioxide is the most effective agent to dilate the cerebral blood vessels but it dilates the vessels of the uninvolved part of the brain thereby shunting blood away from the infarcted area. Acetazolamide (diamox) is a carbonic anhydrase inhibitor which increases the carbon dioxide and thereby hopefully might increase the blood flow. It produces the same situation as carbon dioxide inhalations and is not ef-

fective. Papaverine may increase the blood flow and it also does not increase the blood flow to the infarcted area. Aminophyllin, histamine, norepinephrine, nicotinic acid, procaine, alcohol, and all the other drugs that have been recommended in this condition are not effective.

It is extremely important, however, to treat hypertension because the presence of hypertension will make the thrombosis worse and may cause a cerebral hemorrhage. The justification for actively treating *all* patients with hypertension can be found in the prevention of cerebral hemorrhage in the hypertensives by such treatment.

SURGICAL TREATMENT

Surgical treatment for stroke has been used for 15 years in the extracranial carotid system, but it has not been effective in the vertebral. Atherosclerotic lesions involve the bifurcation of the large arteries including the carotid, the junction of the carotid and the vertebral arteries with the aorta and the junction of the major arteries arising from the arch of the aorta as the subclavian and the innominate arteries. These areas of stenosis may be removed by endarterectomy or bypassed with graft. DeBakey has concluded, after reviewing 1,500 cases, that operation in patients with paralysis of over 24 hours duration is not indicated unless there are new neurological lesions developing or the obstruction is incomplete and the neurological function is improving. The most suitable candidate for surgery is the patient with the transient ischemic attack and here the results are good.

The most important treatment of stroke is prevention. As physicians all know, the recovery from stroke is difficult and the rehabilitation is a "long road back." It is very important to attempt to prevent stroke by controlling the risk factors which are hypertension, hypercholesterolemia, obesity, and diabetes. In recent years another risk factor has been added in the oral contraceptives and these are especially dangerous in women who have had migraine headaches. These women probably should not be given the oral contraceptives and, if they are, they should be very explicitly warned of the increased danger to them.

Certain hematological disorders carry an increased risk for stroke. These are para-proteinemias as a macroglobubinemia, the hemoglobinopathies, sickle cell anemia, and the consumption coagulopathies which produce intravascular coagulation with secondary excessive consumption of the clotting factors giving rise to thrombosis followed by hemorrhages with low platelet counts and fibrinogen levels. The most common cause of this, of course, is the type of coagulation difficulty encountered after incomplete separation of the placenta.

Various types of inflammatory diseases of the blood vessels may pre-dispose to stroke. These include tuberculosis and syphillis and allergic angiitis. Temporal arteritis produces certain types of stroke often with loss of vision and occlusion of the retinal artery. This condition can usually be diagnosed by palpating the tender temporal artery or one of the other extracranial arteries, the elevated sedimentation rate, and the clinical history. The diagnosis may be proved by a biopsy of the artery if there is doubt about the diagnosis. These patients respond to steroids. Periarteritis nodosa causes central nervous system involvement in 46 per cent. The steroids may be of benefit here. Seventy-five per cent of the patients with systemic lupus erythematosus develop central nervous system lesions. Steroids are effective in this condition. The so-called pulseless disease of young women will cause symptoms referable to the central nervous system but there is no treatment available for this.

It is important to be aware of the dangers of cerebral embolization in certain conditions and to consider the use of anticoagulation. These include rheumatic heart disease with mitral stenosis with or without atrial fibrillation, myocardial infarction, and subacute bacterial endocarditis.

Finally it is very important to utilize all aids in diagnosis if there is any doubt. Examination of the spinal fluid has been mentioned. Other procedures should be utilized if indicated and these include the skull x-rays, the brain scan, and the angiogram. The angiogram, of course, is very important in evaluating and determining the future care of patients with subarachnoid hemorrhage.

Recent Advances in Ileal Conduit Stomal Care

CHARLES E. HAWTREY, M.D.
Iowa City

Widespread acceptance of ileal conduit for urinary diversion introduces new care technics into the physician's armamentarium. Patients surviving with ileal conduits require competent follow-up care from their personal physicians. The challenge in the postoperative management of these patients lies in caring for the stoma and the collection receptacle. This article presents background information to facilitate care of ileal conduit patients.

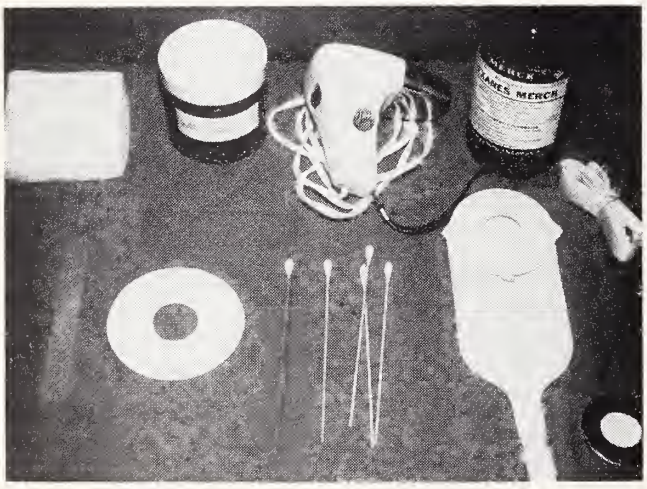


Figure 1. Appliance Equipment. Left to right—Top Row—1) Gauze sponges, 2) Silicone glue, 3) Portable hair drier, 4) Hexane solvent, and 5) Belt. Left to right—Bottom Row—6) Tongue blade, 7) Double-faced adhesive discs, 8) Cotton tip applications, 9) Marlin bag, and 10) Karaya gum seal. 1) Gauze sponges are rolled into a tube to collect the urine while the skin dries. 2) The Silicone glue is applied with the tongue blade to the disc face of the Marlin bag (8). 3) The hair drier facilitates rapid drying of the adhesive on the skin and appliance. 4) Hexanes are used as solvent for rubber or Silicone glues. 5) The belt attaches to the lateral flanges of the disc face holding the appliance in place after the glue hardens. 7) A double-faced adhesive disc may be used to replace the Silicone glue. 10) The karaya gum seal may be used to heal minor skin injuries.

Dr. Hawtrey is an assistant professor in the Department of Urology at The U. of I. College of Medicine.

Upon discharge from University Hospitals each patient receives two Marlin or Lapides appliances, appropriate glue, solvent, double-faced adhesive discs, a supporting belt, adapter tubing, leg bags, and night closed drainage bag (Figures 1 and 2). A small booklet summarizing the stomal care and equipment care is provided each patient. The booklet includes the names and addresses of equipment manufacturers which may be used for further orders.

The ileal stoma may contract gradually circumferentially over the initial 1.5 to 3 months postoperatively and changes of appliance size are often necessary. Careful surveillance during this time insures good skin healing. Stomal



Figure 2. Shown above is the night drainage system. In upper middle (1) is the collection appliance; this connects with (2) the adapter tubing; and leads (3) to the closed drainage bag. Information on equipment care is provided each patient.



Figure 3. Stomal ulceration related to faulty application of the appliance. These stomal ulcerations occur when the adhesive glue adheres to the bowel mucosa or the appliance is removed roughly by the patient. The latter holds true for paraplegic patients whose sensory deficit deprives them of appreciation for skin injury.



Figure 4. Peristomal hyperkeratosis. Urinary diversion is accomplished with an indwelling catheter. This patient wore the same appliance for 24 months after diversion. She felt that postoperative follow-up would be of little value. The skin overgrowth results from prolonged contact with the urine.

skin problems represent the largest group of complications from ileal diversion. The following factors assist in prevention of problems.

APPLICATION OF APPLIANCE

Clean, dry skin around the conduit stoma represents the single most important factor in a successful appliance seal. A double faced adhesive disc or Silicone glue is applied to the appliance and allowed to dry. Direct adhesive application to an appliance disc surface may suffice for a good seal. Some patients require glue application to peristomal skin and appliance. All patients are instructed to rest quietly while the Silicone adhesive *sets*. The disc is centered carefully to avoid marginal ulceration which occurs with glue application to the stomal mucosa (Figure 3). Fixation of the appliance without leakage usually lasts four to five days. We recommend that patients change their appliances at least every five to seven days for appropriate skin cleaning. The instructions inform the patient to remove the appliance if burning or pain is experienced.

APPLICATION FAILURES

Leakage through the glue seal occurs with faulty application, hyperacute flexion of the abdomen or poor placement of the stoma too near a bony prominence.

Since all patients have some contracture of the peristomal skin within three to six months or more postoperatively, the stoma should be remeasured at the six weeks, three months, six months, and one year postoperative visits. Hyperkeratotic overgrowth of peristomal skin occurs when the surrounding skin bathes in urine (Figure 4). Stomal stenosis occurs if sufficient skin or fascia are not removed. The underlying fascial constriction produces atro-

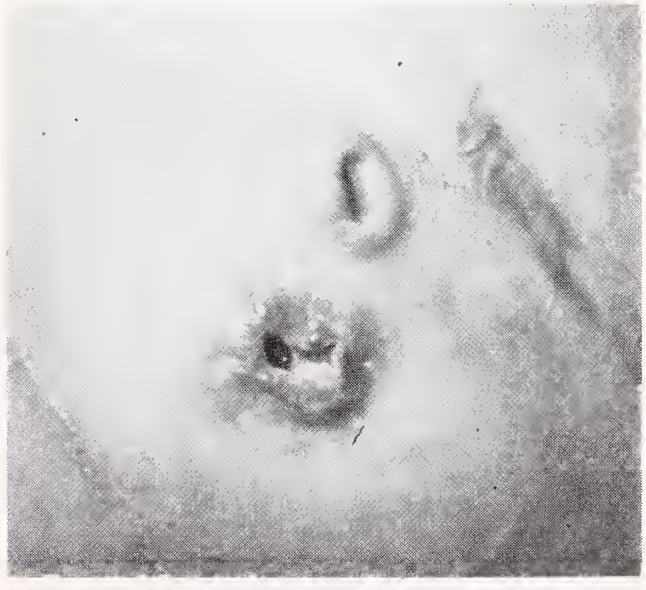


Figure 5. Stomal stenosis with migratory replacement of the stomal mucosa with squamous epithelium. This patient's stoma necessitated surgical revision.



Figure 6. Urinary diversion by catheter, hyperkeratosis treated with air drying and heat lamp. The hyperkeratosis was the result of two years with a too large appliance. The previously mentioned patient ultimately required surgical revision of her ileal stoma. (See Figure 4.)

phy of the more superficial bowel muscle and progressive decrease in stomal circumference. On occasion complete obstruction (urinary retention) has occurred (Figure 5).

Mucosal or skin ulcerations require careful management with the goal being early re-epithelization. Surface drying of the skin may be accomplished with karaya gum powder which is sprinkled on the involved area and the excess blown away from the stoma. The appliance will adhere over this surface without further skin injury. Zinc oxide or aluminum paste may protect the skin from urine drainage. A karaya gum seal bag must be used under these circumstances. A goose-necked heat lamp fitted with a 40 watt bulb (Figure 6) and placed 18 inches from the skin dries the denuded areas expeditiously. The urinary output is collected in a cardboard toilet tissue core filled with cotton or in a rolled gauze sponge. These drying treatments which last 20-30 minutes are continued daily until the ulcer heals. Deep ulceration requires urinary diversion with an indwelling Foley catheter and prolonged periods of dryness. Occasionally dependent drainage on a Stryker frame or rotating electric bed heals resistant deep ulcers. Primary care is always the early recognition of skin problems and fastidious skin care.

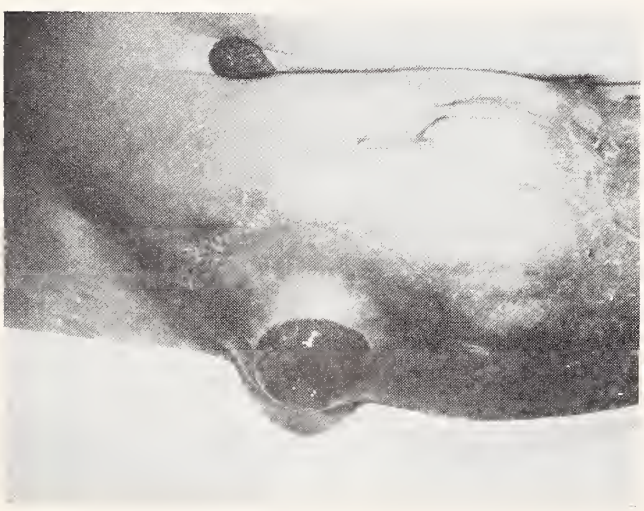


Figure 7. Peristomal hernia of the conduit through the fascia. The mucosa and skin are intact but prolapse into his Lapides appliance when standing.

Peristomal hernias occur early and late in patients with conduit diversions (Figure 7). Fascial defects can be palpated through the stoma and the diagnosis made by digital examination. Operative repair is mandatory. Retroperitoneal placement of the conduit obviates this problem. Optimal care results in an excellent functional result. The normal stoma demonstrates a sharply defined mucosal-skin margin with minimal scar. The skin under the appliance is smooth with occasional slight pigmentation. The stoma mucosa reflects a glistening cherry red surface extruding mucous in addition to clear urine from time to time.



Figure 8. The patient wears her appliance for three to four days at a time. The white circular margin reflects the diameter of the appliance. The inner indentation of the skin, 1-2 mm. from the mucosal skin junction, represents the inside diameter of the appliance. The dressing sponge covers a colostomy.

Figure 8 demonstrates a normal conduit stoma.

The recent adoption of Silicone glues has removed the problems of glue sensitivity ob-

served with rubber based adhesives. Whereas previously patients were skin tested with 12-18 adhesives, the routine skin testing procedures have been abandoned. No skin sensitivity has been encountered with Silicone adhesives. Occasional patients develop transient erythema if the hexane solvent is not completely evaporated.

Markland,[1] in a 1964 review of stomal complications felt that in 32 per cent of patients, the complications were related to obstruction at the fascial and skin levels. The overall incidence of complications has decreased to 28 per cent in the intervening six years but careful surgical technics have not obliterated stomal problems. The role of newer appliance technology must play a supplemental part.[2, 3]

SUMMARY

Recent advances in surgical technic, glue and appliance technology, have reduced the incidence of stomal complications. Early patient and physician recognition of stomal derangements will accelerate prompt treatment and obviate surgical therapy.



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Editorials

M. E. ALBERTS, M.D., Scientific Editor

A NEW LOOK

A new year, a new volume, and a new cover for the IMS JOURNAL are evident with this issue. At first glance, the cover may appear a bit *far out*, but there is artistic symbolism behind its design.

The major element is the serpent of the staff of Aesculapius, the Greek God of medicine. It extends through the new journal logo, surrounds the message of the advertiser, and takes in the article titles. You may ask "why the advertising matter on the front cover"; a logical question, but one with a logical answer. A large portion of funds which cover the cost of the publication of the JOURNAL are provided by the advertisers. Should the time ever come when advertising is no longer desired for the front cover, the printing plate is so designed that other copy may be inserted in the space—a photograph, a sage quotation, or a special message.

We are enthused about the new look. It is modern and has a meaning. We build on the excellence of the past in our current efforts to produce a worthwhile medical journal, one which will be of increasing interest to the reader. Further innovations are planned.—M.E.A.

FOOD FOR THOUGHT

A unique method of stimulating attendance at medical staff meetings has been described by Warren G. Harding, II, M.D.,* administrator of Grant Hospital, Columbus, Ohio. *The way to a man's heart is through his stomach* approach has been employed and staff meetings have become gastronomic delights. The meals served to the medical staff are based on various social, national or geographic themes. Vienna may be the setting for one meeting, Mexico City the next. The dishes are authentic, and a printed dual-language menu is provided to increase the interest generated by the setting.

It was reported that the hospital's dietary department has developed great interest in the culinary project, and it has been pleased to have frequent requests for recipes from wives of the staff members. Furthermore, various dishes have been included on patient menus after enthusiastic recommendation by the medical staff.

Now what did all this do for the medical staff meeting? Well, there was a four-fold increase in attendance, and more significantly, most physicians remained for the entire meeting. Interested? Maybe your hospital administrator might be too.—M.E.A.

* Harding, Warren G. II, New approach to staff meeting attendance. OHIO STATE MED. J., 67:986-988, 1971.

PERIODIC HEALTH EXAMINATIONS

Are periodic executive health examinations necessary? Some surveys imply they are a waste of medical talent and time. Others feel programs as multiphasic screening serve a purpose. Many professional men actually consider the examinations a waste of time that could be used in more productive ways.

A recent report* from Mayo Clinic presents some interesting statistics. Analysis of 2,812 examinations on 569 subjects reveals that more than 83 per cent of the subjects had one or more significant diseases. Many of these executives were unaware of any problems. If 16-17 per cent were without disease, does this indicate a waste of the time of the subject as well as the medical examiner? I think not inasmuch as the Mayo Clinic statistics reveal 50 instances of malignant disease in 46 subjects, as well as a relatively high percentage of diseases which might be a predisposing factor to malignancy or other chronic condition. 29.5 per cent of the subjects were obese, 21.6 per cent had polyps of the colon and rectum, 15.8 per cent hypertension, and 10.4 per cent peptic ulcer.

It appears evident that busy executives cannot allow themselves to be so busy that they avoid health examinations. We emphasize the importance of well-baby and school examinations, so why not routine consideration of the productive man in the business world, as well as professional life? Doctor, when was the last time you were examined? Not by you, or your blood pressure checked by your nurse, but by your own personal physician? You are important too, you know.—M.E.A.

* Carryer, Hadden U., *et al:* Executive health examinations: analysis of 2,812 examinations on 569 subjects at Mayo Clinic. MAYO CLINIC PROC., 46:742-746, Nov. 1971.

HEXACHLOROPHENE & NEWBORNS

A drug bulletin dated December 1971, from the U. S. Food and Drug Administration, warns about the use of hexachlorophene preparations to bathe newborn infants. Studies have shown that rats fed hexachlorophene have developed cerebral edema and cystic spaces in the brain substance. Newborn monkeys bathed daily for 90 days with 3 per cent hexachlorophene developed similar tissue changes. There is no doubt that colonization of gram-positive organisms is decreased when the skin is cleansed with hexachlorophene, but these new studies cast considerable doubt on its safety when used on newborns. Another FDA report (Dec. 8, 1971) rated hexachlorophene products effective for use as bacteriostatic skin cleanser (including surgical scrub) but only possibly effective for use in treatment of impetigo of the newborn, in the treatment of cradle cap and in helping to clear acne.

Consequently, because of these FDA reports, the American Academy of Pediatrics recommends dry skin care, or the use of plain soap and water, or tap water alone for bathing newborn infants. The attendant providing this skin care should scrupulously wash her hands before and after handling each infant, as well as before entering the nursery. It is recommended that either an iodophor preparation or a 3 per cent hexachorophene emulsion be used for this purpose.

So, here we go again—the progress of medicine continues to be a series of advances and retreats. Innovations cause much excitement and wide acceptance, often to be torn down later as not desirable. In this example, apparently soap and water will reign again much to the dismay of little boys.—M.E.A.

Medical Assistants

by TENORA MEYER

National Highlights

Enthusiasm abounded at the National Convention of Medical Assistants held in Atlanta, Georgia, November 9-13, 1971. Six hundred and sixty-five medical assistants registered at the convention; of this number, 132 were delegates. Marie Young, AAMA President, praised AAMA members and reported that many of the goals of the Association had been attained during the year.

The following national officers were elected:

Vice President: Marian Cooper, CMA, Pennsylvania
President-Elect: Betty Massey, California
Secretary-Treasurer: Zelma Bechtol, Illinois
Speaker of the House: Ruth H. Dize, Virginia
Vice-Speaker: Laura Lockhart, Ohio

The following trustees were elected:

Rita Paris, LVN, RT, CMA, Texas
Leigh Snow, CMA, New Mexico
Chris Spence, CMA, Georgia.

The following trustees were elected to fill unexpired one-year terms:

Ethel Haase, CMA, Illinois
Lonie Kanak, Virginia

Thirteen medical assistants from Iowa attended the convention, including National Trustee Jeanne Green of Davenport; Delegates Marjorie Snyder of Cedar Rapids, Colleen Proffitt of Des Moines, Marcine Sanders of Davenport, and alternate Colleen Overton of Des Moines.

Helen Bartachek of Belle Plaine participated in the Arts and Crafts Show and received two blue ribbons.

Jeanne Green was elected chairman of the Membership Committee and national coordinator of public relations. She was also elected to the Executive Committee.

The general sessions included speakers from the Atlanta Regional Nephrology Center, discussing "New Dimensions in Treatment." The hemodialysis program was explained; the Center director, Elbert P. Tuttle, Jr., M.D., spoke on "The Right to Live: The Price of Survival." A panel, made up of a doctor, nurse, social worker and chaplain, discussed "The Right to Die: To Walk Not Alone."

Wesley Hall, M.D., AMA President, urged continuation and expansion of AAMA educational programs, since paramedical personnel will be needed more and more and must be able to handle more details as time goes by. Dr. Hall also announced a grant from AMA of $25,000 to help with our programs. Merck, Sharp, and Dohme's grant this year is $18,000 with a promise of $25,000 next year. These grants will help finance some of the audiovisual and in-service training programs we have been trying to promote.

Specialty sections covered Family Practice, Pediatrics, Radiology, Orthopedics, Ophthalmology, Internal Medicine, Surgery, and OB-GYN.

The "Age of the 80's" program simulated a TV show with a variety of educators predicting what is to come. This included a discussion of revised curriculum essentials which are expected to change many procedures and attitudes as they relate to medical assisting education and the trade and technical schools in which the programs are offered. The presentation covered the current status of AAMA's educational programs and the prospects for medical assisting in the 80's. Public relations, membership growth and national health care insurance were also discussed.

A special seminar on audiovisual media offered program chairmen an opportunity to see how they can utilize audiovisual aids in local programs.

MEMBERSHIP MARK

Membership in AAMA has passed the 14,000 mark! This is a goal everyone has worked hard to reach. It is the first time the total has climbed to this level. Many medical assistants feel they are too busy to become involved in an "after-hours" activity, but contact with other medical assistants at local meetings, state and national conventions increases the medical assistant's knowledge and affords many opportunities for continued education in her field.

This page is prepared for and by the Iowa Chapter, American Association of Medical Assistants. Material is compiled by Miss Tenora Meyer.

Woman's Auxiliary News

May Your AMA-ERF Gifts Multiply Like Rabbits

Flopsy, Mopsy, Lopsy, Cottontail and Mother Rabbit were center stage at the AMA-ERF workshop on October 21 at the Iowa Medical Society Headquarters Building in West Des Moines.

Mrs. Rollin Perkins, AMA-ERF State Chairman, with expert help from Mrs. Sherman Arnold, North Central Regional AMA-ERF Chairman, presented an inspiring program for county AMA-ERF chairmen, county presidents and board members.

Large, colorful poster rabbits were used to enhance a dialogue promoting the sale of 50th anniversary gold seals and charms, Christmas cards, decorative watches and umbrellas, as well as use of AMA-ERF memorial cards. Beautiful new stationery, tool kits, charms and bracelets, Christmas trimmings, playing cards and TODAY'S HEALTH books were other items on display. Jane Perkins reports selling was brisk during the workshop.

In her remarks, Mrs. Arnold emphasized the challenge of the AMA-ERF President to gather $900,000 in 1972. She explained that goal can be reached if each auxiliary member would contribute a minimum of $10 to the fund or purchase that much merchandise.

"All the costs of gathering the funds are paid by AMA-ERF so every penny collected is forwarded to the medical school which you designate," explained Mrs. Arnold. It is important in making a contribution to indicate whether the money is to be used by the medical school or placed in the Student Loan Guarantee Fund.

Because of the high rate of interest being charged for most loans, there is a pressing need for an increase in contributions to the Loan Fund for the use of interns, residents and medical students on a long term, low interest basis. "Many of our best physicians come from families which have little, if any, private wealth," said Eddie Arnold. Records show loan defaults run less than one per cent.

Since March 1962, 612 loans totalling $678,450 have been made to native sons and daughters of Iowa. This money should continue to be made available to help medical students achieve their goals.

Help—by sending Memorial Cards from AMA-ERF instead of flowers!

GROWTH—The Name of the Game

"Growth must be the *Name of the Game* this year as we come of age in the celebration of our 50th Anniversary in June, 1972," says Mrs. G. Prentiss Lee, national auxiliary president.

"We will never achieve a truly influential organization, or reach our full power potential unless we offer our members meaningful involvement at every level of auxiliary work—county, state and national.

"We must be a forward-looking organization, willing to use new ideas, willing to be receptive to the needs of the community and the people. We must be willing to look at problems as a whole, set goals and plan activities. We need to know, above all, in what DIRECTION we are trying to move.

"The auxiliary organization has a purpose—a reason for being, but we will never achieve full stature until we get out of our ruts, shake off lethargy and become responsive to the rapidly changing times.

"We need to constantly re-examine and re-evaluate our organization at every level of activity. We must listen in order to learn. We must open our minds, expand our vision and bring to life all that is creative within us. We must never sit satisfied with what we have done.

"As physicians' wives, we must be willing to work our minds, our fingers and our imaginations. 'Imagination,' said Einstein, 'is more powerful than knowledge.' Imagination enlarges vision, stretches the mind, challenges the impossible. Without imagination, thought comes to a halt.

"We are going to work for positive good health through auxiliary programs. We are going to be action-oriented as we work together this year. Invite and involve your members and remember, as Goethe wrote, 'Whatever you can do, or dream you can, begin it. Boldness has genius, power and magic in it.' "

Sponsor Successful Health Careers Day

Seventy-five senior students from Boone High School participated in a Health Careers Day at the County Hospital in October.

The Boone County Medical Auxiliary sponsored the event with help from the high school counselors and the hospital administrator. Mrs. Noble Irving, of Des Moines, District V Councilor, attended the program.

Busses brought the students to the hospital where they spent the morning.

Charles Linden, the hospital administrator, welcomed the students and discussed matters of general interest about the hospital. The seniors then took part in three small group sessions, each lasting 25 minutes. The Auxiliary served cookies and cokes during an interval in these sessions.

Discussion was led by specialized personnel in the following fields: ambulance service, dietetics, medical technology, operating room and x-ray technology, medical stenography, physical therapy, social work, nursing and dental assisting.

A physician, veterinarian, psychologist and pharmacist also described their fields.

In the past, a formal tea has been held for both junior and senior high school students in Boone County. The change in this year's program brought such a large and favorable response the Auxiliary expects to expand the program in the future. It is hoped that other auxiliaries will participate in the 1972 Health Careers Day and that junior students can be included.



CAREERS WORKSHOP—Charles Linden, administrator of the Boone County Hospital, left, describes work in the health field for high school seniors at recent workshop held at the hospital and sponsored by the Woman's Auxiliary.



TAKE PART—Participants in the recent Boone County Health Careers Workshop were, left to right, Mrs. J. R. Anderson, Boone County Medical Auxiliary; Mrs. N. W. Irving, Des Moines, WA Councilor for District V; Mrs. Marie Carlson and Roger Cook, Boone High School guidance counselors; and Mr. Charles Linden, Boone County Hospital Administrator.

SOMEDAY, We Will Be YOU!

As *doctors' wives*, each year we feel moved to give to many charities because many of them are medically oriented and we understand their needs. There is one particular organization—WA-SAMA—that should draw a response from every "doctor's wife" in the United States. This organization includes the wives of medical students, interns, residents and doctors serving in the armed services.

Our membership dues are not high, and the fund raising projects we hold only help support our local chapters. To keep our national organization going we must look to our friends all over the country. If you want to help us grow into mature and responsible doctors' wives—then become a sustaining member now!!! In the past sustaining membership dues have supported our work with the Explo '70 project. We have prepared a guide book for the foreign medical graduates who become interns and residents in this country. We have become involved in medical legislation and this year we even have an ecology chairman.

For those who have supported us in the past, we say "Thank You"—and for those who will be helping us in the future we say, "Thank You." These programs will not continue without your help. Many of the WA-AMA Chapters join as a group, this is wonderful, but we only have nine sustaining members from Iowa. If each individual would join, just think how that membership number would climb. We need your interest now, because someday we will be *You!*

Join now by sending your $5 dues to Mrs. Joel Port, Box 275, Flossmoor, Ill. 60422 and then look for your first issue of "The Spectrum" (our newsletter) in the mail. You'll enjoy reading it!—MRS. JOHN GAREFOLA (SUSAN), *National Sustaining Membership Chairman, 3415 Coachman East Apts., Lindenwold, New Jersey 08221.*

The Child and Mental Health

The role of the child in mental health was stressed again this year at the 29th Iowa State Mental Health Association Convention held in Davenport.

Five guest speakers covered timely subjects during the two-day October convention. Theme for the meeting was "New Horizons in Child Mental Health, Conservation, Not Casualties."

New theories were advanced regarding the educationally handicapped child. It is believed 15 per cent of all children have a learning disability at one time or another. Hopefully, these children are discovered in kindergarten or first grade. A significant number are unable to learn to read.

These children may also have difficulty in writing, may be over-active, be easily distracted, may seem inattentive and at times appear awkward.

A child with a learning disability could have any or all of these characteristics. His problems are made more difficult by the fact that he may think of himself as stupid because he can't learn to read; and adults may think of him as retarded or lazy.

The child is not stupid or lazy. In fact his I.Q. is usually above average. He has a block in the learning process. He may have difficulty in understanding the letters in a word or he may have difficulty with abstract reasoning. Or, perhaps his problem is in recognizing the relation of things in space. He may appear awkward and bump into objects. Or he may be poor in handwriting or have a delay in language development.

If the youngster's problem is not identified and cared for at an early point, problems may persist and increase. The total evaluation of a child with a learning problem requires the combined attention of teachers, psychologists and physicians.

The child needs support, assurance, and often counseling. The child must be made to understand that despite what other children might say or what he might think of himself, he does not necessarily suffer from a permanent impairment of his faculties. He has a limited problem that may be overcome or compensated for.

Compensating for a learning disability should not be thought of as "giving in" to a handicap. Many people with learning disabilities have been gifted in other ways.

Edison was at the bottom of his class and people considered him stupid. His teacher told him he had an addled mind and he never returned to school. Ben Franklin had difficulty with mathematics. George Bernard Shaw found spelling so hard he developed his own phonetic alphabet. Albert Einstein was late in learning to talk.

Needless to say, all these men were able to compensate for their learning disabilities and to live successful, rewarding lives. It must be impressed on the child with a learning disability that he, too, can lead a rewarding life if he does not accept self defeat.—MRS. JAMES DONAHUE, *Mental Health Chairman.*

When It Comes to Phosphates—TAKE YOUR CHOICE

Mrs. S. P. Leinbach, State Rural Health and Ecology Chairman, reported at the October Board meeting the phosphate question in laundry detergents is still unclear.

You will have to decide for yourself (1) to use phosphate-free detergents with the risk of possible side effects, injury to the eyes, skin eruptions and caustic effects on children; (2) to use the old fashioned soap of yesteryear for laundering; or, (3) to go back to your "old favorites" with as low a phosphate content as possible, knowing that they are water pollutants.

If you need information on the subject of Ecology get in touch with Mrs. Sam Leinbach, Route 1, Belmond, 50421, immediately or whenever.

Not only is she a rich source of information herself, but she will willingly direct you to references for reading, places to send for brochures on the subject and films which are available. She is now working on a list of available speakers on environmental protection.

In need of a program? Contact Mrs. Leinbach.

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Editor of THE NEWS—Mrs. J. L. Kehoe, 111 McClellan Blvd., Davenport 52803

About IOWA Physicians

Dr. Gerald C. Miller, a general surgeon, has joined the staff of the Carroll Medical Center. A 1964 graduate of the University of Nebraska School of Medicine, Dr. Miller served a three-year residency at Methodist Hospital in Omaha. He recently practiced at Clarinda.

Dr. Robert E. Condon, professor and head of the Department of Surgery at the U. of I. College of Medicine was elected to membership in the Surgical Biology Club II, the Society of Clinical Surgery, and the American Association for the Surgery of Trauma at a recent meeting of the American College of Surgeons in Atlantic City.

Dr. Paulino T. Fong has become associated with **Dr. Austin E. Schill,** a Des Moines obstetrician and gynecologist. Dr. Fong is a graduate of the University of Santo Tomas, Manilla, Philippines. He completed his internship at Niagara Falls Medical Center, and served his residency at Western Pennsylvania Hospital, Pittsburgh, Pa., Deaconess Hospital and Roswell Park Memorial Institute, Buffalo, New York.

Dr. Walter M. Block, Director of the Cedar Rapids Child Evaluation Clinic, spoke on the "Medical Aspects of Learning Disabilities" at a recent meeting of the International Reading Association in Cedar Rapids. Dr. Block also spoke recently at Drake University at a meeting of the Iowa School Psychologists Association. His topic was "Cerebral Dysfunction, Clarification and Classification."

Dr. C. R. Wilson, of Manson, was recently honored for providing 25 years of medical service to that community and the surrounding area. November 7 was designated Dr. C. R. Wilson Day and a public reception was held in his honor. Dr. Wilson was cited in particular by **Dr. L. K. Berryhill,** of Fort Dodge, for helping to establish the North Central Iowa Mental Health Clinic.

Dr. Montague S. Lawrence, of Cedar Rapids, spoke on "Cardiac and Thoracic Surgery" at a recent meeting of the Linn County Association of Medical Assistants.

Two Davenport physicians—**Dr. Lonnie Lim,** an obstetrician and gynecologist, and **Dr. Robert Collier,** a general surgeon—have opened a new clinic. Both physicians have been practicing in Davenport for the past two years. Dr. Lim received the M.D. degree at Seoul National University College of Medicine, Seoul, Korea, in 1958 and interned in New York, Chicago, Alexandria, West Virginia, Hamilton, Canada, and Winnepeg, Canada. He also received training in psychiatry at the University of Manitoba, Canada and in Northville, Michigan. He practiced in Wise, Virginia, as an obstetrician and gynecologist, and in Clarinda as a psychiatrist at the Mental Health Institute before coming to Davenport. Dr. Collier received the M.D. degree at the University of Illinois Medical School and served his residency in general surgery at The U. of I. College of Medicine. Prior to coming to Davenport, he served for two years as an Army physician and also practiced in Helena, Montana.

Dr. James A. Clifton, professor and head of the Department of Internal Medicine at The U. of I. College of Medicine, was guest speaker at a recent meeting of the Wapello County Medical Society.

Dr. Frank R. Richmond, Sr., of Fort Madison, was recently congratulated by **President Richard M. Nixon** upon completion of 50 years in the medical profession. Dr. Richmond received a personally autographed photo from the President.

Dr. Rafael A. Roure, physician in Malvern and Glenwood, has announced he plans to build a new clinic in Glenwood. The project calls for an ultra modern facility to be completed within one year. It will include eight examining rooms, laboratory, X-ray unit, minor surgery room, physiotherapy unit and emergency cardiac facilities.

Dr. Walter Fox, superintendent of the Mental Health Institute in Mt. Pleasant, has resigned his post to accept a position in Arizona. Dr. Fox will assume his new duties as Director of the Bureau of Mental Health for Arizona in February. He has headed the Mt. Pleasant facility since 1966.

Dr. M. P. Vanden Bosch retired from the general practice of medicine in Grundy Center January 1 and has accepted an assignment with the Joint Commission on Accreditation Board in Chicago, Illinois. Three Conrad physicians—**Dr. Robert Patterson, Dr. Glendon Button,** and **Dr. John Kruschwitz**—have assumed Dr. Vanden Bosch's practice. All three physicians will continue to live in Conrad and Dr. and Mrs. Vanden Bosch will continue to make Grundy Center their home.

Dr. E. L. Wiemers, director of clinical services at the Cherokee Mental Health Institute, was a recent guest lecturer on "College Classroom," a program telecast over Channel 4 in Sioux City.

Ten new physicians who have located in Sioux City since last June were the honored guests at a recent meeting of the Woodbury Medical Society. They are **Dr. Stanley Finn,** urologist; **Dr. Mary L. Gannon,** urologist; **Dr. Stuart W. Leafstedt,** general surgeon; **Dr. Charles E. Jones,** ophthalmologist; **Dr. L. W. Van Voorhis,** gynecologist; **Dr. Roland L. Langley,** psychiatrist; **Dr. James J. Goebel,** radiologist; **Dr. J. Scott Pennepacker,** pathologist; **Dr. Edward Van Bramer,** internist, and **Dr. Gary Hill,** general practitioner.

Dr. Axel Lund, has joined the staff at Doctor's Park Associates in Marshalltown. A graduate of The U. of I. College of Medicine, Dr. Lund served his internship at Broadlawns Polk County Hospital in Des Moines. He formerly practiced in Ackley.

At the Carroll Rotary Club's 50th birthday celebration, **Dr. Walter A. Anneberg,** of Carroll, a Rotarian since 1924, was presented with a plaque for his long membership and distinguished service as chairman of the Rotary Foundation Fund.

Dr. Kenneth A. Hubel, associate professor of internal medicine at The U. of I. College of Medicine, spoke on "Effects of Secretin and Glucagon in Intestinal Transport of Ions and Water in the Rat," at a combined meeting of the Central Society for Clinical Research and the American Federation for Clinical Research in Chicago.



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Dr. Wing Tai Fung, formerly of Hong Kong, recently joined **Drs. L. V. Larsen** and **C. V. Bisgard** in the general practice of medicine at Harlan. Dr. Fung interned at the Hospital Center in Washington, D. C., and in Halifax, Canada. He was in general practice for two years at Pottsville, Pennsylvania, and then returned to Hong Kong for training in general surgery. He practiced medicine in Hong Kong for three years.

Dr. Reginald L. Murphy, formerly of Omaha, Nebraska, has become associated with **Drs. J. E. Whitmire** and **N. J. Elmer** in Sumner. Dr. Murphy is a graduate of Creighton School of Medicine and interned at St. Joseph's Hospital in Omaha. He served his residency at Queen of Angels Hospital in Los Angeles and later was a resident physician at Veterans Hospital in Iowa City. A Diplomate of the American Board of Medical Examiners, he also spent three years in general practice in western Nebraska.

Dr. P. M. Schap, a Mason City dermatologist, was guest speaker at the November meeting of

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the Wright County Medical Society. Dr. Schap spoke on "Cutaneous Malignancies."

The following Iowa physicians were initiated as Fellows in the American College of Surgeons at a recent meeting of the group in Atlantic City—**Dr. C. A. Cardenas**, of Lake City, **Dr. Kitti Kalambaheti,** of Victor, and **Dr. Jose Martinez,** of Council Bluffs.

Dr. J. X. Tamisiea, who recently opened an office in Milford, has been engaged to provide pathology services for the Dickinson County Memorial Hospital. Dr. Tamisiea was formerly located in Omaha where he was an assistant professor and instructor in pathology at the University of Nebraska School of Medicine.

Dr. Ronald L. Villella, a Des Moines pathologist since 1967, has accepted a position with Freeman, Hanske, Munkittrick, Foley and Muschenheim, P.C. in Minneapolis. While in Des Moines, Dr. Villella served as pathologist at Mercy Hospital; Co-director of Laboratories at Northwest Hospital; and Laboratory Director and Associate Clinical Professor of Pathology at the College of Osteopathic Medicine and Surgery. He also helped provide pathology service for St. Joseph's Hospital in Centerville and Wayne County Hospital in Corydon.

Dr. Wendell K. Downing, of Des Moines, presented a paper on the evaluation of the colon and participated in a panel discussion on colon diseases at the 57th annual clinical congress of the American College of Surgeons.

Dr. Merle J. Brown, of Davenport, was recently elected to the board of governors of the American College of Surgeons. Dr. Brown will serve a three-year term.

Dr. Kerry L. Jensen, of Clinton, has been elected to active membership in the American Academy of Family Physicians.

Dr. W. K. Dankle, of Clear Lake, was guest speaker at a recent meeting of the Ventura Parent Teacher Association. Dr. Dankle spoke on epilepsy and discussed a film entitled, "Convulsion."

Dr. J. E. O'Donnell, of Clinton, has been appointed to a two-year term on the Clinton County Board of Health by the Board of Supervisors. Dr. O'Donnell will fill a vacancy created by the resignation of **Dr. George D. Aurand,** also of Clinton.

Dr. R. E. Weland, of Cedar Rapids, has been re-elected chairman of the board of the Iowa division of the American Cancer Society.

At the first annual clinical conference of the Woodbury Medical Society, **Dr. Donald Warkentin,** associate professor of internal medicine at The U. of I. College of Medicine, discussed "Managing of the Cardiac Emergency," and **Dr. James Taylor,** associate professor of pediatrics at the University, discussed "Childhood Leukemia and Its Imitators." Two Sioux City physicians also appeared on the program. **Dr. G. G. Spellman,** an internist, spoke on "Dialysis Centers," and **Dr. William Jackson,** a pediatrician, spoke on "Immunization in Childhood." Following adjournment of the clinical conference, Dr. Warkentin talked on "The Proper Role for Cardioversion," and Dr. Taylor on "Counseling in Genetic Disease," at a general meeting of the Woodbury Medical Society.

Dr. Robert E. Condon, professor and head of surgery at The U. of I. College of Medicine, was recently elected to membership in the Western Surgical Society.

Dr. James J. Shehan, formerly of Omaha, has opened an office for the practice of internal medicine in Red Oak. Dr. Shehan received the M.D. degree at Creighton University in 1963 and is certified by the American Board of Internal Medicine.

Deaths

Dr. Emma Neal, 93, who practiced medicine in Cedar Rapids for 63 years before retiring in 1966, died November 15 at Mercy Hospital in Cedar Rapids. Dr. Neal received the M.D. degree at the Keokuk Medical College and began the practice of medicine in Cedar Rapids in 1903. She was a member of the Linn County Medical Society and a life member of the Iowa Medical Society.

Dr. A. A. Eggleston, 75, a Burlington surgeon for over 50 years, was dead on arrival November 12 at Memorial Hospital in Burlington. A 1919 graduate of The U. of I. College of Medicine, Dr. Eggleston was a Fellow of the American College of Surgeons, a member of the Des Moines County Medical Society, American Medical Association and a life member of the Iowa Medical Society. He was on the staff of both Memorial and St. Francis Hospitals in Burlington.

Dr. R. N. Commey, 88, longtime Sergeant Bluff physician, died November 5 in Los Angeles, California. Dr. Commey received the M.D. degree at The U. of I. College of Medicine in 1905. He served his internship at St. Joseph Mercy Hospital in Sioux City and began his practice of medicine in Sergeant Bluff in 1906. Dr. Commey was a member of the American Medical Association and a life member of the Iowa Medical Society.

Dr. Diedrich J. Haines, 60, died November 19 of an apparent heart attack while on a hunting trip. Dr. Haines received the M.D. degree at The U. of I. College of Medicine in 1934 and was a member of ΑΩΑ, honorary medical scholastic society at The University. From 1936 until 1939, he held a fellowship in internal medicine at the Mayo Clinic in Rochester. Dr. Haines was certified by the American Board of Internal Medicine, a member of the Iowa Society of Internal Medicine, Polk County Medical Society, Iowa Medical Society and American Medical Association.

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by LARRY E. LEAVERTON

Collection of Income Tax Data Requires a System

At this time of year, physicians, along with all business and professional people, wage earners and even retired persons, face the task of accumulating information to substantiate deductions and to secure proper tax treatment for their various types of income. Terms such as income averaging, carryovers, investment tax credit, recapture, Sections 1231, 1250 and 1251 properties can be as foreboding as many medical terms are to the average layman. However, with a proper system of (1) accumulating necessary information and (2) getting assistance, you can get through April 15 with a minimum of strain.

Assistance from a tax advisor or consultant does not release the taxpayer from responsibility for error or omission. While most advisors know the answers, or can get the answers, the taxpayer must furnish complete information.

Most problems on physicians' returns involve the accumulation and classification of non-professional income, i.e., security sales, interest and dividends, rental properties and trusts. The solo physician typically will have much of this information in his practice records. The doctor in a partnership or corporation, or one who is hospital based, has his distributive share of professional income determined by the partnership tax return or by his earnings statement if he is employed by a corporation.

How are these non-professional income and non-professional deductions accumulated? The ideal way is to have a detailed system of records for all non-professional income and expenses, investments, and liabilities of a non-professional nature.

In the absence of a personal accounting system it is necessary to properly identify all deposits and checks written throughout the year. A separate household account for food, clothing and personal items is suggested. Make no deposits of income to this account. It is replenished once or twice a month from your business account.

A receipt file for all bills paid outside the office should be kept in date order rather than by classification. The reason for this is that it will follow the order of your checkbook in the event future retrieval is necessary. In today's cashless society, few bills, particularly of tax consequence, are paid by cash. If this does occur the receipt will be filed so it can be picked up when the year is reviewed.

Most households maintain a personal daily calendar or diary with notes about trips, entertainment or other activities. A review of this at the end of the year will recall pertinent information.

Other suggestions:

Be tax conscious throughout the year, not just when you are gathering information for your tax returns. In our experience the items most commonly forgotten are contributions, casualty losses, medical conventions or meetings, or an investment made, lost and forgotten.

Don't depend on your tax advisor to know of change in marital status, personal dependents, an investment gone sour or a large cash contribution.

Deposit all income and write all checks of tax consequence through one account—and identify the items.

Keep all receipts and file in date order for the complete year.

Keep records of all security transactions.

If in doubt about the tax consequence of a proposed transaction, ask, before you make the investment.

With a proper system, income tax data can be accumulated quickly and with a minimum of confusion. It will also give you assurance and peace of mind to know your tax records are in order and you are paying no more tax than the law requires.

Mr. Leaverton is Director of Research and Development for Professional Management Midwest.

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Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. *Adults:* Tension, anxiety and psychoneurotic states, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

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- Meningioma—Medulloblastoma
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FEBRUARY 1972

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A gratifying announcement about Empirin® Compound with Codeine



You may now specify up to five refills within six months when you prescribe Empirin Compound with Codeine (unless restricted by state law).

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President's Page



The Iowa Medical Society participated January 28 and 29 in a Conference on Rural Health Care Delivery for Southwest Iowa. Discussion centered on the major barriers to providing quality medical care at the primary, secondary and tertiary levels in Southwest Iowa. "Accessibility, availability, and acceptability" of medical care were evaluated. Geographic, financial and societal circumstances bear heavily on the subject. The IMS has made a continuing effort to improve the traditional patterns of medical care delivery. Various IMS committees have been involved in studying means of providing adequate medical care to all Iowans. The successful methods of the past have been measured against new approaches and techniques. In studying the delivery of health care in Iowa, it is impossible (except for discussion and critical evaluation) to separate the problems of rural Iowa from those of non-rural Iowa.

The recently opened Model Rural Health Clinic (at Oakdale) is a great step forward. Other fundamentally excellent steps have been taken to meet future medical needs, e.g., the increased enrollment of the College of Medicine, the establishment of the Family Practice Department, the increasing relationship between medical education and the community, to mention only a few. The Model Rural Health Clinic will deliver primary care in an area close to the University and as such will be a teaching facility for Iowa medical students and allied health personnel. The Clinic's operation will be scrutinized closely since its techniques and methodology may eventually be transferable to other locations in Iowa.

The absence of primary physicians from many small communities is offset somewhat by our mobility. We can travel greater distances much faster because of our improved road system. Adequate medical care is as available to many rural Iowans as it is to those in a metropolitan setting. Constant effort to make transportation to medical care facilities rapid and safe is the responsibility of all Iowa citizens.

Patients want a one-to-one relationship with their physicians. They prefer to relate to an individual doctor. Physicians, however, must be concerned with the total community in which they practice. Hopefully, then, both population and personal medicine can flourish without destroying the one doctor-one patient relationship, as well as the independence of the physician. Many of our health care delivery problems stem from highly complex societal and institutional factors outside the precise realm of the medical profession.

L. J. O'Brien M.D.

President

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IOWA Medical Miscellany

SPORTS CONFERENCE . . . Donald Cooper, M.D., team physician at Oklahoma State University, Stillwater, will be a featured speaker at the March 30 Conference on Medical Aspects of Sports to be held in Des Moines. Conference is a joint project of the Iowa Medical Society and the Iowa High School Athletic Association. The IMS Committee on Sports Medicine is coordinating the event which is for coaches, trainers, physicians and others active in high school sports. It will be at the Iowa Methodist Hospital.

PEER REVIEW . . . A special briefing for chairmen of the Society's district peer review committees was held January 25 at IMS Headquarters.

PHYSICIANS' ASSISTANTS . . . The eight-member Governor's Advisory Committee on Physicians' Assistants Programs met January 13 at Society Headquarters. Three members of the Committee are physicians: John MacGregor, M.D., Mason City, Byron Merkel, M.D., Des Moines, and Thornton Bryan, M.D., Iowa City.

MAKES FIELD TRIP . . . IMS Committee on Alcoholism met in Spencer January 20 to receive a briefing on the program carried on at the Northwest Iowa Alcohol Treatment Unit. Mr. Jeff Voskans directs the facility.

MEDICINE & RELIGION . . . Telecast over WOI-TV on January 13 was a discussion of medicine and religion and those areas where clergymen and physicians can and do work together. The program was taped at IMS Headquarters and involved Paul Ferguson, M.D., Lake City, chairman of the Soicety's Committee on Medicine and Religion, and Arne Larson, director of the AMA Department of Medicine and Religion.

YEAR-END CONTRIBUTORS . . . The Scanlon Medical Foundation/Iowa Medical Society received approximately $1,000 in response to a year-end informational mailing inviting physician contributions. The December report advised that $30,-070 is committed this academic year in Foundation loans to Iowans attending medical school.

INSURANCE MAILING . . . Information regarding new insurance offerings available to members of the Iowa Medical Society is contained in a late January membership mailing. The mailing is from The Prouty Company, IMS group insurance administrator, and seeks to ascertain level of physician interest in the new coverages: office overhead expense disability insurance, in-hospital indemnity insurance, and excess major medical insurance.

TOUR OAKDALE . . . IMS Committee on Delivery of Health Services will tour the new Oakdale family practice facilities February 29 and will receive a briefing from John MacQueen, M.D., and Robert Rakel, M.D., U. of I. faculty members involved in the program's development.

ANNUAL MEETING PROGRAM . . . The complete program for the 1972 Annual Meeting of the Iowa Medical Society will appear in the March issue of the JOURNAL. Society members are encouraged to review the program and to attend all or part of the sessions. Meeting dates are April 23-26.

NOMINATING COMMITTEE . . . The 1972 Nominating Committee will meet at 2 p.m., Sunday, March 26, at IMS Headquarters. The Nominating Committee includes a physician representative from each of the 12 councilor districts. County society delegates to the IMS House of Delegates are eligible to participate in district caucuses at which members of the Nominating Committee are selected. These caucuses must occur prior to March. 10.

DELEGATES HANDBOOK . . . Now in preparation is the 1972 Handbook for the IMS House of Delegates. It will be distributed in mid-March to those Iowa physicians scheduled to represent their county societies at the forthcoming Annual Meeting. The Handbook contains reports of the Society's committees, resolutions received from county medical societies and other information.

LEGISLATIVE DINNER . . . Members of the Iowa General Assembly were hosted February 3 by the nine-member Iowa Health Council at a dinner in Des Moines. This event affords the state's providers of health care the opportunity to recognize the Iowa lawmakers and underscore the interest of the health field in the legislative process. The Iowa Medical Society is an active member of the IHC.

PHYSICIAN ON BOARD . . . The first physician ever elected to the Waterloo Allen Memorial Hospital Board of Directors is Vernon Plager, M.D. Dr. Plager has been on the medical staff since 1951. His election to the Board occurred in December.

SEE PRESENTATION . . . The Woodbury and Johnson county medical societies have recently viewed the audiovisual presentation on distribution of IMS dues dollars. The 17-minute presentation is scheduled in Story County April 18. The presentation may be scheduled through IMS field men.

DEBAKEY IN DES MOINES . . . Michael DeBakey, M.D., widely-known heart surgeon from Texas, will speak at Drake University Wednesday, March 15, at 8 p.m. Dr. DeBakey's public lecture will be on the subject, "Scientific Advances in Heart Disease."

AMA REAPPOINTMENTS . . . Two Iowa physicians have been reappointed to committees of the AMA. Donovan F. Ward, M.D., Dubuque, will continue to serve on the AMA Legislative Committee. Clarence H. Denser, Jr., M.D., Des Moines, has been reappointed to the AMA Committee on Quackery.

NEONATAL DEATHS . . . Of the 908 infants under one year who died in Iowa in 1970, 692 reportedly died within a week of birth. Of the 692, death came for 449 in the first day after birth. This information was included in a recent Iowa Daily Press Association news feature by Drake University student Karen Haddy. The feature described the neonatal intensive care units now operating or planned in Iowa. One new unit is beginning operation at Iowa Methodist Hospital in Des Moines. Others are planned in Sioux City, Waterloo and Dubuque.

VISIT IOWA COMMUNITIES . . . U. of I. health care students have visited Manchester and Corning under a program devised by the University Alumni Association to acquaint future physicians, dentists, pharmacists, etc., with the opportunities and rewards available in Iowa communities. Sixteen students, including four medical students, spent a recent weekend in Corning.

CORRECTION . . . The Refresher Course for the Family Practitioners to occur at The University of Iowa College of Medicine February 15 to 18 is accredited for 28 hours by the Iowa Academy of Family Practice. The number of credit hours was noted at 18 in the January issue.

PREVENTIVE MEDICINE . . . The Society was represented January 6 at a meeting of health care providers called by State Senator John Walsh of Dubuque. Meeting was to explore ways in which local chapters of the Junior Chamber of Commerce might assist in stimulating and coordinating community health programs.

ANN LANDERS . . .



Popular Ann Landers, nationally syndicated columnist and native Iowan, will be the banquet speaker at the IMS Annual Meeting Tuesday, April 25. Miss Landers' topic will be, "Confessions of a Girl Who Has Practiced 17 Years Without a License!" Banquet will climax two days of scientific and socio-economic presentations. 1972 Annual Meeting, including House of Delegates sessions, will run from April 23 to 26 at the Hotel Fort Des Moines.

POPULATION DATA . . . New booklet, *Iowa Population Trends,* compiled by the ISU Cooperative Extension Service, reports: "With a declining birth rate and an increasing death rate during the 1960's, the natural increases in population (excess of births over deaths) decreased. In 1970, there were approximately 85,500 fewer individuals in the 0-9 category than in 1960, while the 10-24 age category increased by nearly 153,000. With continuing out-migration, there were approximately 40,500 fewer persons in the 25-44 range than in 1960. During the past 10 years, the 65 and over age group increased by nearly 22,500. This represented 12.4 per cent of Iowa's population, up from 11.9 per cent in 1960. In 1970, Iowa was surpassed only by Florida in percentage of its population 65 years of age or older. . . ."

INFORMATION ON TOBACCO . . . The Iowa Interagency Council on Smoking and Health reminds physicians literature on tobacco use for interested patients may be obtained from three sources: Iowa Heart Association, 529 36th Street, Des Moines; Iowa Tuberculosis and Respiratory Diseases Association, 1818 High Street, Des Moines, and American Cancer Society, Iowa Chapter, Box 980, Mason City.

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Educationally Speaking

by RICHARD M. CAPLAN, M.D.

CAN A BUSY DOCTOR FIND HAPPINESS AS A PART-TIME TEACHER OF ALLIED HEALTH PERSONNEL?

What does the word "doctor" mean when used as a verb (as, to "doctor" a recipe)? Does it not imply to alter or change something, especially with the implication of correcting, improving, repairing? I think we all have some doctoring to do, *educationally,* in our local work environments. After all, education of necessity involves the production of some change in the learner.

Very few readers (of *any* publications these days) can remain oblivious to the pressures all around us for physicians to pursue their own continuing education as actively as possible. Or of the pressures to make more and better use of allied health personnel in delivering health care. Or of the pressures to function as a "team" with our professional and allied health colleagues.

Who will be the "faculty" to achieve these changes? The briefest reflection should convince you that even the initial development, but especially the on-going aspects of training for all the team cannot possibly be accomplished only by those who work full-time as teachers in our academic health centers and teaching hospitals. Such people can be spearheads, catalysts, models—and especially *inducers* of activity. *But physicians everywhere will have to recognize their role in teaching the team members as well as themselves and each other.* In each office and hospital, others must be taught and coordinated—new types of individuals as well as just new individuals. If physicians are the central ingredient in the team, it will fall inevitably to them to fill the teacher's role, in accord with the local needs, personnel and facilities. Original education and continuing education will have to be conducted more and more in community settings—*your* hospital, *your* office.

Will physicians do it? Will they give the time and effort necessary from their exceptionally busy lives? I think they will—once they truly perceive the need. Once they see the increasing interdependence of the physician's role in relation to the other roles. Once they get a taste of the satisfactions to be gained from instructing others, and watching that instruction "pay off" in the improvement of the efficiency and effectiveness of the health care we dedicate ourselves to.

Dr. Caplan is Assistant Dean, Continuing Education, at The University of Iowa College of Medicine.

Continuing Education Courses & Conferences

Please call or write Office of Continuing Medical Education, College of Medicine, for further information on these programs. Telephone 319-353-5763.

1972

Feb. 7-10	Intensive Coronary Care Management Course*
Feb. 15-18	Refresher Course for the Family Physician
Feb. 19	PKU Guthrie Workshop (State Hygienic Laboratory)
Feb. 24	Clinical Day in Neurology*
Feb. 28	Workshop on Methyl Methacrylate and Total Hip Replacement
March 1	Ophthalmology Clinical Conference
March 1-3	Nuclear Medicine Review*
March 16	Neurology Elective Material*
March 18	Workshop on Cholesterol Kits (State Hygienic Laboratory)
March 18	Wet Workshop in Basic Immuno-hematological Techniques (St. Joseph Mercy Hospital, Mason City, Iowa)
March 22	Diet Therapy U.S.A.
March 24-25	Neurological Approach to Management of Severely Handicapped (Physical Therapy)
March 29-31	Workshop for Family Practitioner Who Does Anesthesia

Unless otherwise specified all courses and conferences are held at The U. of I. College of Medicine, Iowa City.

* Enrollment limited. Advance registration necessary.

State Department of Health

ARNOLD M. REEVE, M.D., M.P.H., Commissioner

EXPANDING PUBLIC HEALTH NURSING SERVICES TO CARE FOR SICK AT HOME

Iowa public health nurses provided 80,000 nursing services in 1970 to Iowans ill in their homes. Such home care, nearly double that in 1969, is a large part of the public health nursing program. It touches patients of all ages with a variety of health problems. Reports indicate the largest number of services were for persons over age 65 and for those with cardiac conditions and malignancies.

Generalized public health nursing services are available to 90 per cent of Iowa's population. They include in addition to care of the sick preventive and educational services as well. The public health nurse visits prenatal and postpartal clients, infants and preschool children, gives services to schools and clinics, provides rehabilitative services to the handicapped, gives preventive and follow-up services in behalf of preventable diseases and promotes community health education.

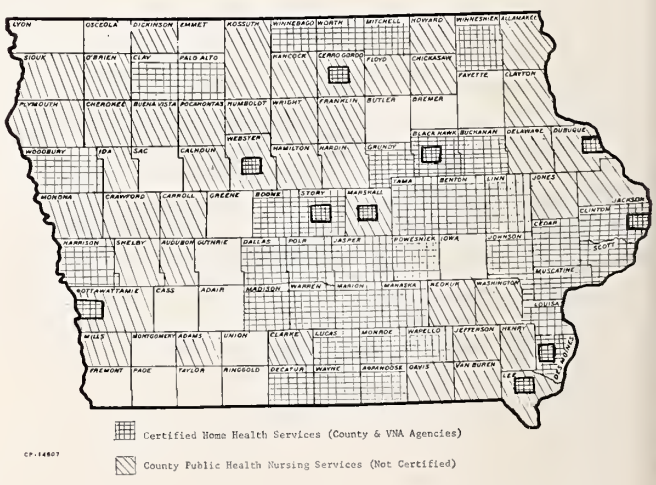
Studies show a good coordinated home care program: (1) Expedites recovery from illness; (2) Prevents or postpones disability; (3) Shortens hospitalization and prevents re-hospitalization; (4) Helps to reduce the total cost of illness; (5) Prevents much medical indigency; (6) Improves utilization of existing hospital facilities.

Public health nurses are directed by the patient's family physician and serve all age groups and financial brackets. They do not charge a fee for educational services, but may charge for care of the sick on a sliding scale according to the patient's ability to pay. Medicare, Medicaid, private insurance and social services pay for some services. Free service is given when needed.

Currently 45 home health agencies are certified to provide home care services under the Health Insurance Benefits Program. These include nursing services under the auspices of county boards of health and voluntary nursing agencies. Sixty-two per cent of Iowa's population has access to these services; however, in many areas services are insufficient in quantity to meet needs. (See Map.) In addition to nursing service, an agency certified under the Health Insurance Benefits Program must have at least one additional service from the following list: physical therapy, occupational therapy, speech therapy, medical social service or home health aide service. A number of agencies have two or more of these services. The additional services in Iowa are predominantly physical therapy or home health aide. These may be supplied by employees of the home health agency or by contract with another health organization, such as a hospital, community homemaker service, social service agency or other health care facility.

Ideally the public health nurse receives a referral from the physician of a patient needing home care. The nurse may, however, receive it from a hospital, welfare agency, church, neighbor or family. If the referral does not originate with the physician, she contacts the physician immediately for patient care orders. If the physician is not known by the referring source, the nurse may call the patient to assess the situation, find the name of the physician, or urge medical care if the patient is not under a physician's care.

The private physician is responsible for the patient's treatment and care, and requests the ser-



vices he feels are needed. The team concept in treating home care patients should be emphasized. Nursing personnel and medical social workers, in handling family problems of ill patients, have met difficult situations and have succeeded in stabilizing home environments. Many of these patients have been able to remain in their own homes for years through home care services. The nurse and the physical therapist have assisted patients, such as post-stroke, and have enabled them to return to useful activity. The nurse and the home health aide have made it possible for elderly, ill persons to receive around-the-clock care by spouses. Numbers of aged patients with chronic emphysema and bronchial asthma are being well-maintained on this program. Arthritics can be maintained on their medical program and, with the aid of physical therapy and occupational therapy, their lives are made both comfortable and happy.

To meet Medicare requirements a physician's plan of treatment must be submitted in writing to the certified agency within 24 hours of the patient's acceptance. A plan of treatment form is supplied to the physician by the certified agency and, although the forms vary somewhat, they must contain information as shown on the accompanying form. The plan of treatment must be renewed at least every 60 days and, as an aid to the physician, the certified agency sends a reminder form to him.

Specific information on the physician's plan of treatment is very helpful, particularly in the following areas:

(1) If a secondary diagnosis exists, it should also be listed. Sometimes the orders for medication or diet relate to a secondary diagnosis rather than the primary one.

(2) In addition to the diagnosis, most chronically ill patients have a battery of social, psychological and medical problems. An indication of these would be helpful to the home care team.

(3) With the medication order, a listing of possible side effects or contraindications would be helpful.

(4) When orders, such as "check blood pressure" are given, it is necessary to know the normal range for that patient.

(5) On orders of "check edema," it would be helpful for the nurse to know at what stage of the edema a physician would like a report from the nurse.

(6) The physician certifies that the patient is homebound and it is necessary that he indicate the physical limitation which makes the patient homebound.

Public health nurses keep a record for each patient served. This record contains identifying information on the patient and family, nursing observations plus an assessment of health needs and services provided by the nurse and other health workers. It also contains the physician's plan of treatment and the nursing care plan.

PHYSICIAN'S HOME HEALTH AGENCY PLAN

To Doctor_____ Address_____

Our agency is requesting reimbursement from Health Insurance Benefit Program for our services to your patients. We will need the information below with your signature.

For_____
(Patient's Name) (Address)

Diagnosis(es)_____

Skilled Nursing Service(s) Ordered by Physician_____

_____

_____ Frequency_____

Medication & Dosage_____

_____

_____ Frequency_____

Physical Therapy Ordered by Physician____

_____

_____ Frequency_____

Goals to be Achieved_____

_____

Speech Therapy Ordered by Physician_____

_____ Frequency_____

Home Health Aide Services Ordered by Physician_____

_____

Additional Drugs & Medications_____

_____

_____

Diet Instructions_____

_____

Activity Permitted_____

_____

Medical Supplies & Appliances_____

_____

Remarks (which should include short and long range prognoses)_____

_____

_____

Estimated length of time and skilled services of the HHA will he required as of this date_____

If patient has been hospitalized, are the above services reasonably related to those received in the hospital? Yes___ No___

I Certify:
Patient is /_/ is not /_/ homebound.

If "Yes", Physical limitation which makes patient homebound as defined in Article 208.4, HHA Manual, HIM-11_____

_____

The above plan of care is /_/ is not /_/ medically necessary and requires skilled nursing care and/or P.T. or speech therapy.

_____ Date_____
(Physician's Signature)

Date Effective_____

Thank you_____
(Nurse or Therapist)

As nurses gain experience with home care programs they find they need to be more definitive in their recording, especially in the description of patients' needs and specifics of services given. This is necessary in order to provide effective continuity of care, and it is also becoming increasingly important in the collection of insurance fees. To become more efficient in recording nurses have been participating in regional workshops on improving the documentation of nursing care. Four workshops occurred in the fall of 1971 and three are planned for the spring of 1972.

Good communication between members of the health care team is essential to an efficiently coordinated home care program. This may be by telephone, mail or personal contact. Without it the entire effort at coordination can be a fruitless one.

The physician should receive a nurse's report of the patient's medical and social condition at stated intervals, and he should feel free to ask for additional information when needed. Sudden marked changes in the course of the patient's illness should be reported to the physician immediately and additional or supplemental orders received promptly. The telephone is still the quickest means of communication here.

Home care team members and families of the ill make the following observations: Certain types of illnesses, long term and terminal, are better cared for at home than in the hospital and these patients

make better progress at home. The constant presence of family and friends in the home environment actually gives the patient closer care in many instances than might be obtained in a hospital. It makes the family part of the care team. It avoids the inconvenience of the family having to travel repeatedly to and from the hospital. It expedites optimum recovery in those patients who can be rehabilitated. It carries the physical rehabilitation program much further and enables the patient to return to his previous status to the extent possible. In terminal situations, it gives greater emotional support to patient and family and enables them to make adjustments to a hopeless situation.

Demands for home care services will undoubtedly increase in Iowa, and the challenge for health workers is to devise ways to support services efficiently and in an adequate quantity to meet needs of patients.

State Dept. of Health Monthly Morbidity Report appears on page 86.

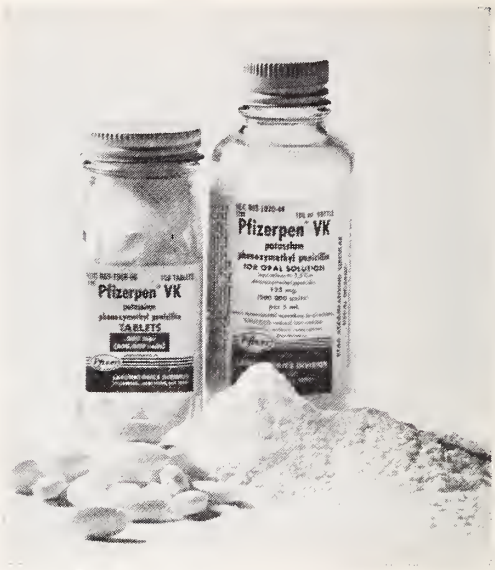
BOARD ACTION . . . The Iowa State Board of Health has adopted a policy which decrees that routine smallpox vaccination is no longer indicated in Iowa. This action sustains a recommendation of the U. S. Public Health Service.



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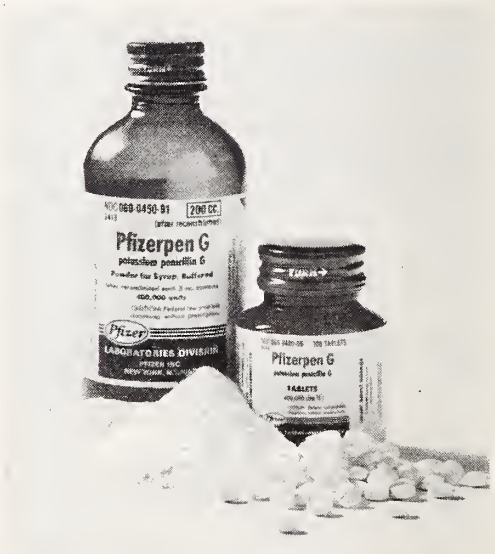
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Pathology Capsules

by JOSEPH SONG, M.D.

CYTOLOGICAL DETECTION OF CARCINOMA IN SITU (PREINVASIVE CANCER, INTRAEPITHELIAL CARCINOMA) OF UTERINE CERVIX

Carcinoma in situ of the uterine cervix (state 0 carcinoma of the cervix, intraepithelial carcinoma, and preinvasive cancer of the cervix) has, as a rule, no gross characteristic appearance. The uterine cervix containing carcinoma in situ may have a smooth and healthy appearance, being indistinguishable from a normal cervix. It seems well accepted that the frank, invasive cervical cancer is preceded by a stage in which the cancerous changes are limited to the surface epithelium, an "in situ" stage. A lesion is properly considered invasive if it shows a breakthrough of the epithelial-stromal junction (the basement membrane), with cancer cells leaking through into the stromal tissue.

In examining multiple slides prepared from the cervical cone or entire cervix, one may note that abrupt changes are taking place in the cervix from a perfectly normal squamous epithelium to an intraepithelial carcinoma of the cervix, as shown in Figure 2. Because of the lack of apparent gross abnormalities on the cervix and the absence of signs and symptoms of a neoplasm, the diagnosis of carcinoma in situ of the uterine cervix will have to be based on a study of cellular specimens, known as a Papanicolaou smear. A cervical smear prepared from a healthy and asymptomatic woman may contain a group or groups of suspicious cells which require a confirmatory biopsy of the uterine cervix. The statistics from population screening projects in various parts of this country indicate approximately 90 per cent of smears are considered to be negative. One of the remaining 10 per cent may show many positive suspicious tumor cells, or approximately 8 per cent of abnormal smears are included in atypical or unsatisfactory categories.

For a confirmatory biopsy, cervical conization seems to be the choice of biopsy methods, as it contains a wide area of endocervix in which most of carcinoma in situ cases are found. The following classifications are generally adopted:

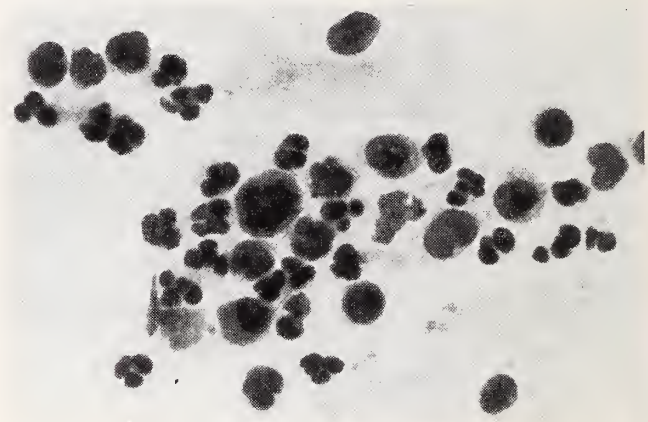


Figure 1. A routine Pap smear from a 28-year-old woman containing suspicious cells.

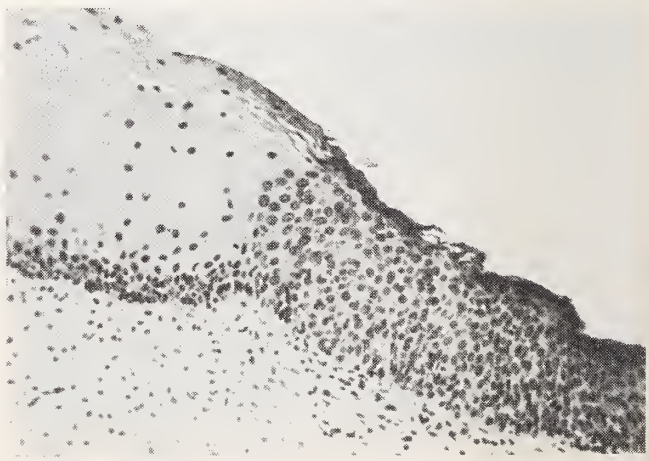


Figure 2. Corresponding cervical cone biopsy showing carcinoma in situ of cervix uteri with abrupt cytologic changes from normal to intraepithelial cancer.

This series of review articles is provided by the Iowa Association of Pathologists. This discussion has been prepared by Joseph Song, M.D. Dr. Song heads the Department of Pathology at Mercy Hospital in Des Moines.

Class I—Negative, annual repeat is recommended.

Class II—Atypical, slight-to-moderate nuclear hyperchromasia, mild alteration of cytoplasmic nuclear ratio. Changes are often associated with cervicitis, trichomonas vaginalis, infection, atypical squamous metaplasia, and/or basal cell hyperactivity. Repeat examination in 3 to 6 months interval is recommended.

Class III—Suspicious, cervical biopsies are indicated.

The mortality rate among women in this country from invasive cervical cancer has been reduced significantly due to widespread use of Pap smears, provided as a part of the routine physical examination. It must be pointed out, however, that Pap smears serve as a screening tool, not as a diagnostic method. A confirmatory cervical cone biopsy must be done to substantiate a suspicious impression on a Papanicolaou smear. It would be highly desirable for all adult women in Iowa to have a routine Papanicolaou smear examination to eradicate cancer deaths due to invasive cervical cancer.

REGIONAL ACP MEETING IN DES MOINES MAY 12 AND 13

A regional meeting of the American College of Physicians will occur May 12 and 13 in Des Moines at Johnny and Kay's Hyatt House. A series of scientific papers, each approximately 15 minutes in length, will be given by Iowa physicians from various specialty areas.

Mark Armstrong, M.D., Department of Internal Medicine, U. of I. College of Medicine, is chairman of the Program Committee. Deadline for the submission of abstracts to Dr. Armstrong in Iowa City is March 1.

Hugh R. Butt, M.D., Rochester, Minnesota, president of the American College of Physicians, will attend the meeting. Edwin Evans, M.D., president of the American Society of Internal Medicine and governor-elect of ACP for Georgia, will also be present. Atlee B. Hendricks, M.D., Davenport, is ACP Governor for Iowa.

There will be a banquet May 12 and the ladies are invited.

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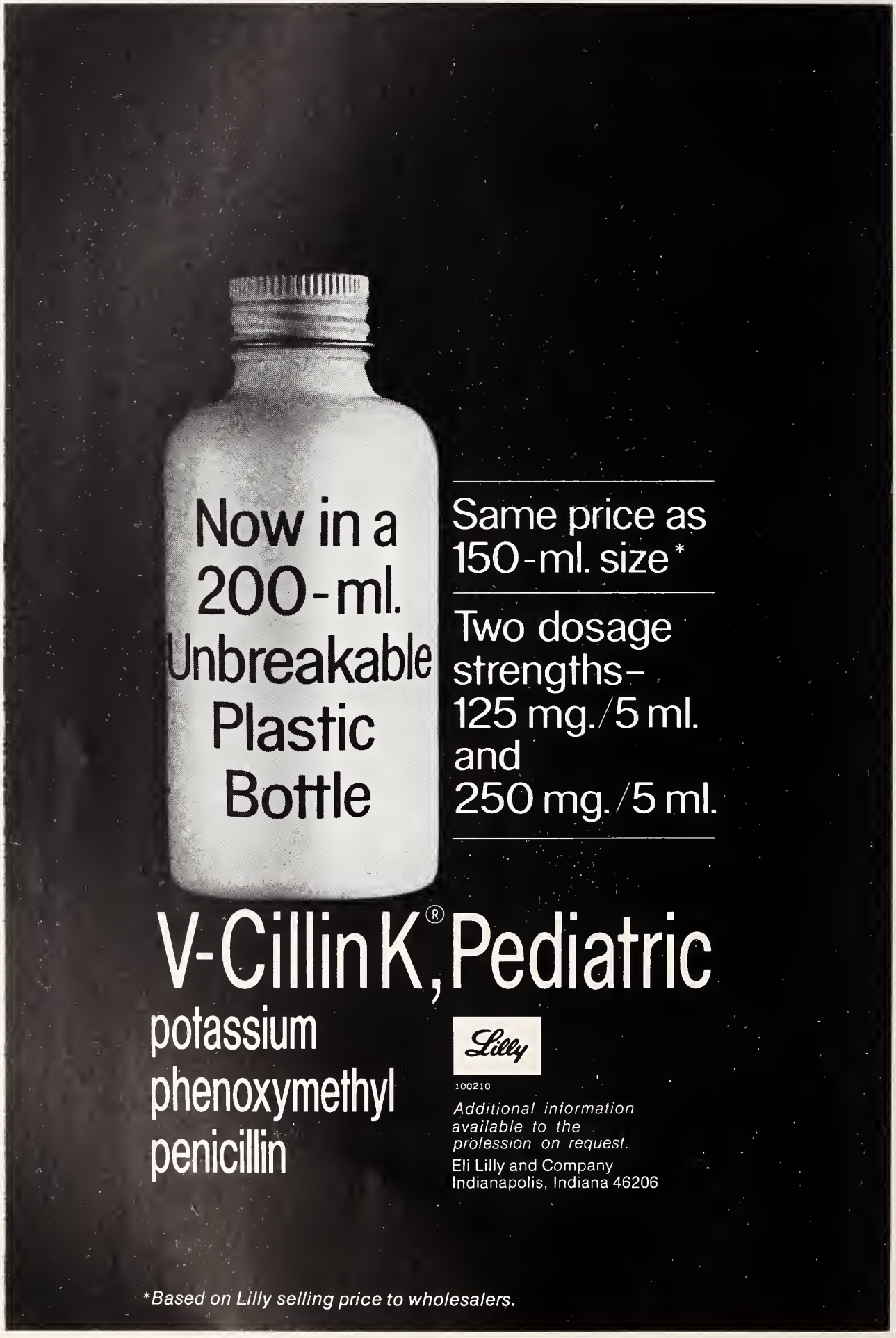
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SCIENTIFIC ARTICLES

Meningioma Occurring in a Patient Treated for Medulloblastoma

WILLIAM F. McCORMICK, M.D.
ARNOLD H. MENEZES, M.B., B.S., and
OLIVER D. GRIN, JR., M.D.
Iowa City

MULTIPLE BRAIN TUMORS of diverse types in patients with one of the phakomatoses, especially von Recklinghausen's neurofibromatosis[4, 5, 14, 20, 21] and von Hippel-Lindau's disease,[18] are well known. Multiple, histologically different central nervous system neoplasms in patients in whom there is no genetic or phenotypic evidence of a phakomatosis are considerably less common, though well documented.[1, 3, 7, 16] Multiple, physically separate but histologically similar neoplasms in the same patient are also well known.[3, 25, 27] Finally, contiguous gliomas and sarcomas are well documented.[23] The occurrence of a medulloblastoma and another type of primary CNS tumor in the same patient, however, appears to be extremely rare. We wish to report the unique case of a patient in whom a cerebellar midline medulloblastoma was cured, only to be followed clinically 15 years later by a cerebral convexity meningioma.

The authors are associated with the Department of Neurology, Pathology (Neuropathology) and Surgery (Neurosurgery), and the Neurosensory Center, U. of I. College of Medicine. Dr. McCormick is professor of neurology and pathology and chief, Division of Neuropathology. Drs. Menezes and Grin are residents in neurosurgery. The Neurosensory Center is supported by Program-Project Grant No. NSO3354 of the National Institute of Neurological Diseases and Stroke, Bethesda, Maryland. Neurosensory Center Publication No. 226.

CASE REPORT

The patient was seen at University of Iowa Hospitals in March, 1956, at 6½ years of age. He had had headaches, severe ataxia and vomiting of two weeks duration. On physical examination, nystagmus on left lateral gaze was present and his gait was broad-based. No papilledema was evident. Ventriculography showed moderate hydrocephalus with displacement of the fourth ventricle to the left. A suboccipital craniectomy was performed, revealing the right cerebellar hemisphere to be enlarged, with shift of midline structures to the left. A grayish, friable, infiltrating mass was seen lying over the medial and inferior surface of the right cerebellar tonsil. A biopsy was performed and revealed medulloblastoma (Figures 1 and 2). A right Torkildsen shunt was placed.

Postoperatively, he received deep x-ray therapy. 5180R (tumor dose) was delivered to the posterior fossa, through 4 fields (lateral opposed, vertical and occipital fields), using a 250 KV machine with a Thoreaus filter.

THE SCANLON MEDICAL FOUNDATION/IOWA MEDICAL SOCIETY HAS DESIGNATED THIS ARTICLE AS THE HENRY ALBERT SCIENTIFIC PRESENTATION FOR THE MONTH OF FEBRUARY, 1972

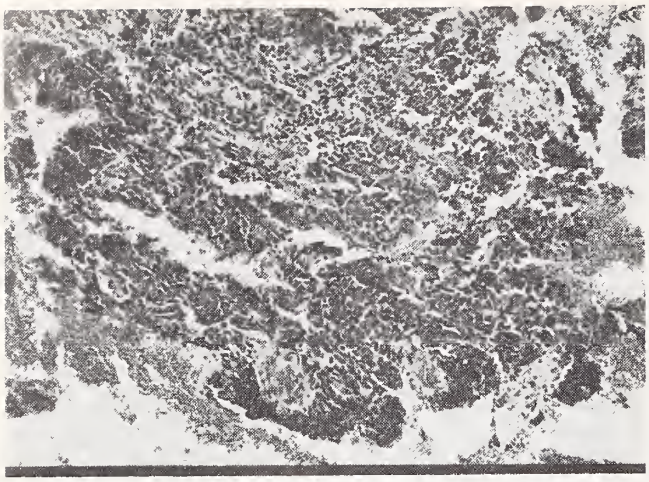


Figure 1. Biopsy specimen removed from cerebellum in 1956 showing typical medulloblastoma (H & E; 25X).

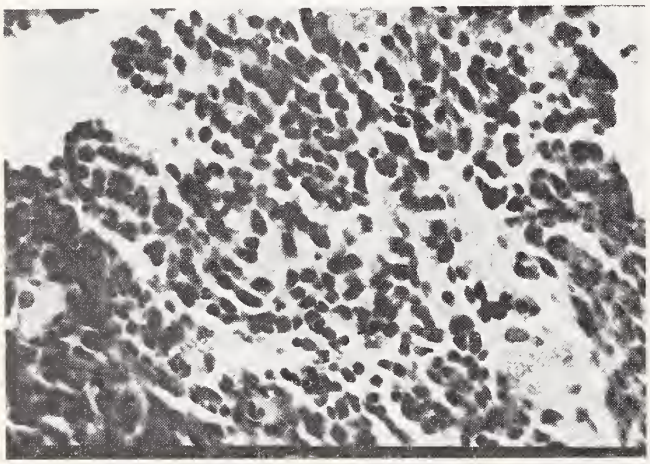


Figure 2. Higher magnification of same tumor (H & E; 370X).

This was accomplished over a 4-week period with treatments being 5 days/week. Following this, the entire spine received 3300R through 4 posterior oblique fields in a 3-week period. Six months after surgery, only a mild nystagmus to the left was present.

Observers at school described the boy as being irritable and belligerent, with an unpredictable behavior. He was placed in a special school in 1959. When re-examined at University Hospitals in 1962 he appeared "retarded." Psychological evaluation showed him to be "remote and sullen, with a complete lack of any motivational system and having a borderline range of intellectual ability (Binet IQ 75-85)." He was mildly obese and complained of occasional headaches and diminished hearing on the right. Ataxia with eyes closed and mild nystagmus to the left was present. Skull x-rays showed no pathology.

He was readmitted in April, 1971. Diplopia, intermittent headaches and left lid ptosis with increasing lethargy of one month's duration were the presenting complaints. On examination, he was fluent, and had dull affect. A partial left oculomotor palsy with mild left facial weakness was present. Horizonal nystagmus with cogwheel eye movements and a left homonymous hemianopsia were evident. Right arm drift, ataxic gait and a reduced al-

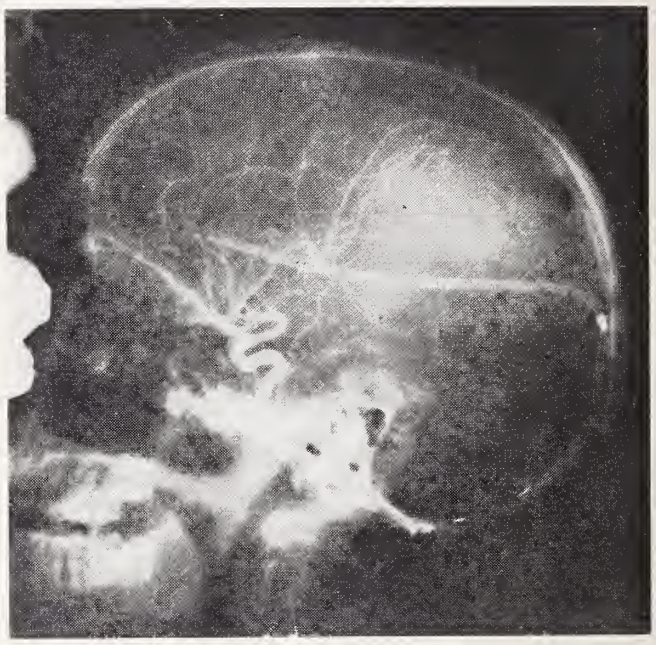


Figure 3. Right carotid angiogram showing a partial mass demarcated by the upward and rostral displacement of the posterior parietal vessels; downward shift of the posterior temporal artery and a "Sunburst" appearance in its center from middle meningeal supply. The previous suboccipital craniectomy defect is visible with the Torkildsen shunt in place.

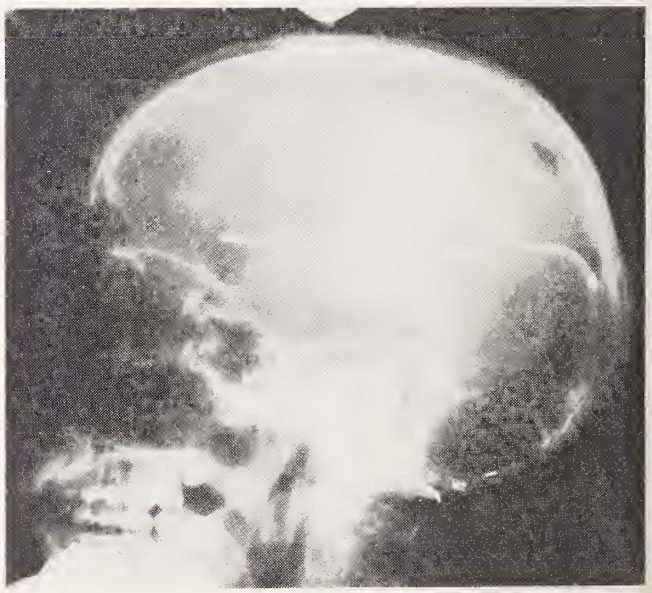


Figure 4. Venous phase of right carotid angiogram. "Blush" is noted in the area described in Figure 3. The "venous angle" is "opened" with mild flattening of the internal cerebral vein.

ternating motion rate bilaterally were detected. Left ankle clonus and bilateral Babinski responses were seen. He was unable to cooperate sufficiently for formal visual fields to be done. Neurosensory hearing loss was present on the right. A detailed family history was negative for mental retardation, brain tumors or cutaneous stigmata of neurofibromatosis. Skull x-rays showed hyperostosis in the right parietal region. The chest x-ray was normal. Electroencephalography was abnormal with 2-2½/sec. slow activity in the right posterior quadrant. Electrodiagnostic study of the reflex response of the orbicularis oculi muscle to supraorbital nerve stimulation was normal bilaterally. A T99 brain scan revealed a dense, solitary, large spherical uptake in the right occipitoparietal region. T_3, T_4 evaluation as well as 17-OH and 17-ketosteroid excretion were normal. Right carotid angiography followed. This showed an approximately 7 cm. mass in the right posterior parietal area, supplied by the middle meningeal artery causing a "Sunburst" appearance (Figure 3). The right Sylvian vessels were displaced rostrally and the anterior cerebral artery was shifted across the midline to the left. This mass was demarcated by a faint venous blush with ventro-medial displacement of the internal cerebral vein (Figure 4). Vertebral angiography was normal. The diagnosis of convexity meningioma was made.

He underwent a right parietal craniotomy. A 4 burr-hole osteoplastic bone flap was utilized. On elevation of the bone flap, it was noted to be invaded by tumor in its center (Figure 5). A corresponding tumor defect was present in the dura, which was tense. The right middle meningeal artery was ligated. Resection of dura was done leaving a large portion attached to the tumor. The surrounding cortex was noticeably thinned out and gliotic. Dissection along the tumor margins allowed its delivery. The mass was rubbery in consistency, relatively avascular, and measured 8 cm. in diameter (Figure 6). The tumor bed was composed of white matter; in the depths of which intact ependyma of the lateral ventricle was visible. A Silicone-rubber-coated Dacron duraplasty was accomplished and was followed by an Acrylic cranioplasty. At the time of discharge, the left oculomotor nerve palsy



Figure 5. Parietal bone flap removed at craniectomy illustrating area of hyperostosis and dilated middle meningeal groove.

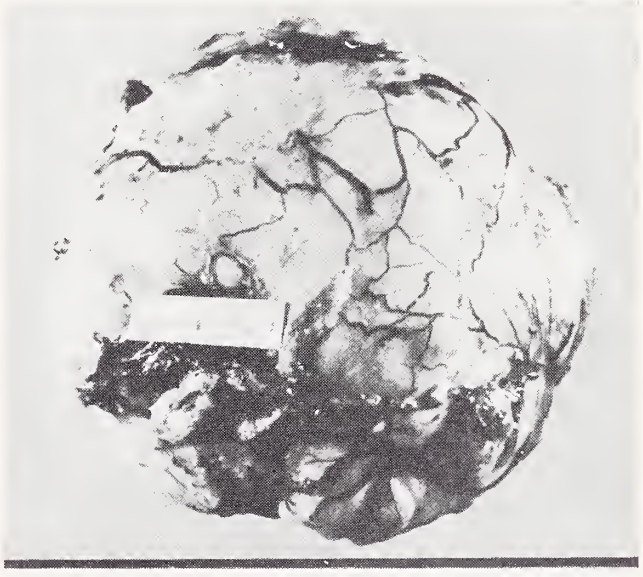


Figure 6. Ventral surface of parietal convexity meningioma.

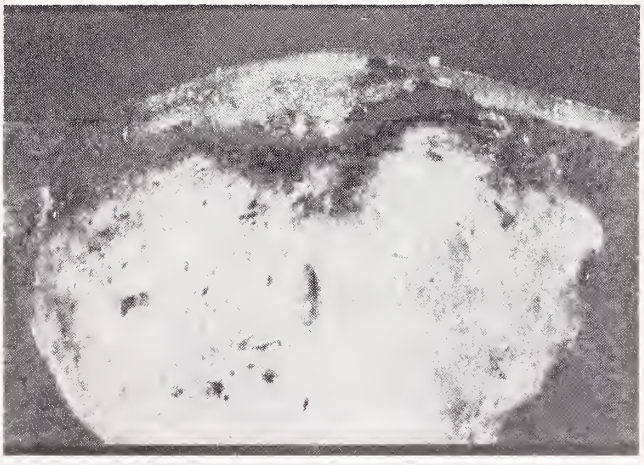


Figure 7. Cross-section of bone flap and meningioma illustrating relationship of hyperostosis to underlying meningioma.

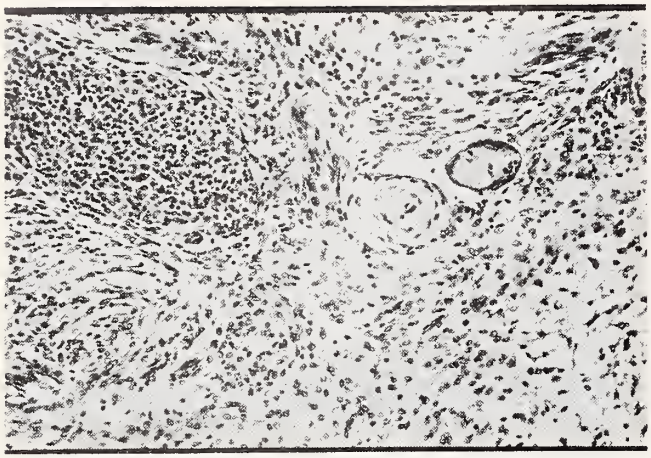


Figure 8. Microscopic section of the neoplasm showing typical feature of the meningioma (H & E; 90X).

was barely noticeable, though the nystagmus and left homonymous hemianopsia remained. No facial asymmetry was detected, and the patient was considerably more alert than on admission.

DISCUSSION

The problems raised by this case, other than those of a purely therapeutic nature, are several. First, the possibility that our patient is a *form fruste* of von Recklinghausen's neurofibromatosis must be considered. The presence of multiple neuraxial tumors and mental retardation[5, 20] would alert one to that possibility. The signs and symptoms of right sided neurosensory hearing loss raises the possibility of an acoustic neurinoma. If such a tumor is present, it greatly strengthens the probability that the patient has neurofibromatosis. The absence of a family history suggestive of von Recklinghausen's disease, the lack of cutaneous stigmata[23] (cafe-au-lait spots, axillary freckling,[6] cutaneous nodules) and the absence of bone[5, 9] or lung[15] changes on roentgen examination are features against the diagnosis of neurofibromatosis. Moreover, medulloblastomas appear to be only very rarely associated with neurofibromatosis. The patient reported by Corkill and Ross[2] is the only example known to us of this association. While the possibility remains that our patient represents a sporadic (new gene mutation) case of "central" neurofibromatosis[4, 19] we do not consider this likely. Meticulous follow-up for a number of years may be required to establish, or refute the diagnosis of neurofibromatosis.

The second problem of interest to us was the possibility of a causal relationship between the therapy given our patient for his medulloblastoma and the parietal convexity meningioma. While it has been suggested that meningiomas may occasionally be radiation-induced,[7, 12, 17] such induction must be quite rare. The interval between irradiation and the demonstration of a meningioma has ranged from about 4 to 50 years.[7, 12, 17] In two patients the post-irradiation interval is not clear from the published report.[17] Both had been irradiated in "childhood" and their tumors identified when they were 46 and 61 years old, respectively. In the remaining 6 patients,[7, 12, 17] the intervals were 4, 12, 16, 24, 26 and 28 years. It is perhaps of importance to note that increased numbers of meningiomas have not been observed in the Japanese long-term survivors of the atomic bombs.[10] The incidence of meningiomata among the non-irradiated Japanese is reported to be very similar to that of most Western populations.[11]

Fibrosarcomas of the brain or meninges following irradiation have also been reported.[19, 26] One such occurrence was reported by Noetzli and Malamud[19] in a girl treated for a cerebellar midline medulloblastoma at the age of 10 who died 8 years later with a fibrosarcoma in the left cerebral hemisphere. They further state that the development of fibrosarcoma 6 to 11 years following radiation therapy has been reported by numerous authors.[19]

The location of the meningioma relative to the cerebellum in our patient is quite similar to the location of the fibrosarcoma reported by Noetzli and Malamud[19] (though on the opposite side). The parietal area was in the field of irradiation produced by the 250 KV source used in the treatment of this patient. It is of interest to note, also, that the only known example of a medulloblastoma in a patient with neurofibromatosis developed thyroid carcinoma, which was considered to be irradiation induced.[2]

The mental retardation present in our patient poses several diagnostic problems. It could represent a manifestation of von Recklinghausen's neurofibromatosis,[4, 5, 20, 22] the result of the therapy received for his medulloblastoma,[13, 26] or merely represent coincidence, since an I.Q. of 62 is not rare in the popula-

tion. Lampe,[13] in citing his experience with 12 patients treated by radiation for medulloblastoma prior to 1954 and who survived more than 5 years, reported rather severe brain damage in at least 4, and possibly damage in 4 others. He reported that 2 of these later 4 (possible brain damage) were "slow in learning in school."

One case does not permit dogmatic statements *vis-a-vis* cause and effect, but the possibility that the radiation therapy for the medulloblastoma caused both the meningioma and the mental retardation must be considered. The absence of the more common stigmata of a phakomatosis, the negative family history, the relatively high dosage of radiation given, the long post-irradiation period, the location of the meningioma within the irradiation field, and the statistical infrequency of "spontaneous" meningiomas in the patient's age group strengthen the possibility that such a relationship does exist.

SUMMARY

The occurrence of a large cerebral convexity meningioma in a young man 15 years after successful treatment for a cerebellar medulloblastoma is recorded. The rarity of medulloblastoma and meningioma in the same patient and the possible relationship between radiation therapy and the development of the meningioma are discussed.

REFERENCES

The references noted in this article are available on request from either the authors or the JOURNAL OF THE IOWA MEDICAL SOCIETY.

PUBLISH PHASE II REGULATORY GUIDELINES

The regulatory language covering Phase II economic controls on physicians and other providers was published December 30, 1971, in the Federal Register. In substance, the regulations correspond with guidelines announced by the Price Commission on December 15. These were published in the December 20 issue of AMERICAN MEDICAL NEWS. A major difference is the insertion of an appeal provision which permits review of fee increases beyond 2.5 per cent, based on increased costs to correct a serious hardship or gross inequity.

In summary physicians may increase fees only to reflect their costs in effect on November 14, 1971, and increases in cost after November 14, 1971, reduced to reflect productivity gains, and only to the extent that the increased fees do not: (1) result in an increase in the physician's profit margin; and (2) do not result in aggregate fee increases in excess of 2.5 per cent a year. Increases above this percentage require prior IRS approval.

Also, physicians will be required to maintain a schedule showing their pre-freeze fees for the principal services rendered. The schedule must be available for inspection by the "public" and a copy shall be furnished to the IRS if requested. A sign must be posted in a prominent place upon the premises stating the availability and location of the schedule.

At the national level AMA representatives have met with the Committee on Health Services and Industry and the Cost of Living Council to discuss the regulations. The AMA has indicated its support for efforts to control inflation and has urged physician cooperation with the regulations. Three points of concern have been directed to the Price Commission by the AMA: (1) the proposed guidelines will lead to unintended discrimination against non-institutional providers; (2) the posting requirements will have no effect on inflationary causes; and (3) the regulations provide for exceptions but give no criteria as to what constitutes "serious hardship or gross inequity." The AMA has urged the Price Commission to prepare explanatory material with specific examples set forth as well as questions and answers.

PEDIATRIC CONFERENCE IN DES MOINES APRIL 6 AND 7

The Raymond Blank Memorial Hospital for Children will present its 16th annual Pediatric Conference April 6 and 7 in Des Moines. Guest speakers include R. M. Blizzard, M.D., Professor, Pediatrics, Johns Hopkins Hospital, Baltimore, Md.; Benjamin Kagan, M.D., Professor, Pediatrics, Cedars-Sinai Medical Center, Los Angeles, Calif.; Ronald M. Lauer, M.D., Professor, Pediatric Cardiology, University of Iowa; Paul F. Wherle, M.D., Professor, Pediatrics, University of Southern California, Los Angeles, Calif.

The Conference will occur at the Iowa Methodist Hospital School of Nursing. Registration for the entire conference is $40. For further information, contact L. A. Wintermeyer, M.D., Iowa Methodist Hospital, 1200 Pleasant Street, Des Moines, Iowa.

Ventricular Fibrillation Following Eyeball Pressure

DAVID F. GORDON, M.D.,
Des Moines
and
LEONARD BIRCH, M.D.
Huntington-Suffolk, New York

Vagal stimulation has been widely employed in the treatment of cardiac arrhythmias, anginal syndrome and pulmonary edema.[1–4] Carotid sinus pressure is the most frequently used method of increasing vagal tone, but other methods (eyeball pressure, Valsalva maneuver, vomiting, etc.) have also been used. Although vagal stimulation is generally regarded as being safe, a few reports of serious or fatal arrhythmias after stimulation of the vagus have been published.[1, 4–11] The overwhelming majority of these patients were receiving digitalis, and with two exceptions[6, 10] the arrhythmias were produced by carotid sinus pressure.

We have recently seen a patient with atrial flutter who received relatively large amounts of digitalis and in whom eyeball pressure led to ventricular fibrillation and death.

CASE REPORT

R.N., a 45-year-old Negro man, was admitted to the hospital on 7-22-63, because of intermittent chest pain of five days duration. The patient had numerous hospital admissions for myocardial infarction, congestive heart failure, and episodes of "recurrent pulmonary emboli." He had a long history of angina and dyspnea on exertion. His only medication was oral digoxin 0.25 mg daily. Five days prior to admission he experienced crushing left precordial pain radiating to the right chest and arm lasting for three hours. Associated symptoms were diaphoresis, dizziness, nausea and vomiting. Residual substernal soreness persisted until admission. In the two days prior to admission he noted increasing dyspnea and one episode of paroxysmal nocturnal dyspnea.

Physical examination revealed a well developed Negro male, tachypneic, and in moderately acute respiratory distress. Blood pressure was 120 systolic and 100 diastolic, pulse rate was 140 and respirations were 32. Oral temperature was 99 degrees Fahrenheit. The skin was cool and moist. The neck veins were distended and filled from below at 45 degrees. Bilateral basilar inspiratory rales were heard in both lung fields. The heart was enlarged to the anterior axillary line, and there was a left ventricular heave. The heart sounds were decreased in intensity. The second sound was single and louder at the aortic area than at the pulmonic area. No murmurs, gallops, or other adventitious sounds were heard. The liver was palpable 3 cm below the right costal margin and was tender.

The urine gave a one-plus test for protein; the sediment contained 4-8 white cells per high power field. The hematocrit was 40%; the white cell count was 7,850 with 41% neutrophiles, 55% lymphocytes, 1% monocytes, 2% eosinophiles and 1% basophiles. The blood sedimentation rate was 4 mm per hour. The blood urea nitrogen was 84 mg%. The SGOT determinations were 28 and 34 units and SGPT were 36 and 56 units. The prothrombin time was 19 seconds with a control value of 13 seconds. A bedside x-ray film of the chest showed marked cardiac enlargement. An electrocardiogram showed atrial flutter with 2:1 atrioventricular conduction and a ventricular rate of 150 (Figure 1).

Dr. Gordon is in the private practice of cardiology in Des Moines. He and Dr. Birch were residents in the Department of Medicine, Manhattan Veterans Administration Hospital, New York, N. Y., when this article was prepared.

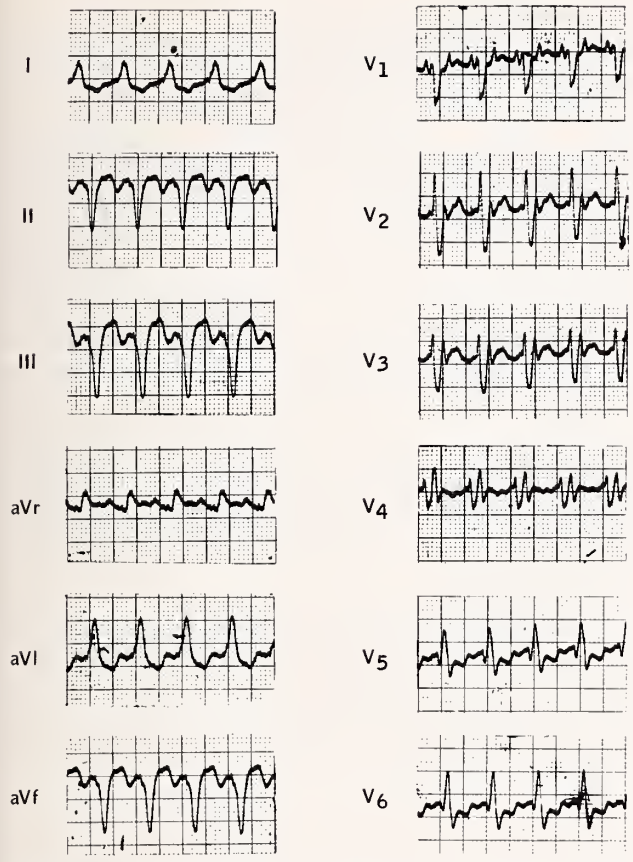


Figure 1. Admission electrocardiogram demonstrating atrial flutter with 2:1 atrioventricular conduction, left axis deviation and an intraventricular conduction defect. There is a suggestion of an old anterolateral myocardial infarction.

The patient's course in the hospital was characterized by progressively severe congestive heart failure punctuated by pulmonary edema and hypotension. His ventricular rate remained between 150-170 despite digoxin administration (1.5 mg intravenous, 0.5 mg intramuscular and 1.0 mg oral administered over the 48 hour period). Procaine amide 500 mg IM was given 36 hours after admission when an electrocardiogram was erroneously interpreted as ventricular tachycardia. It appeared likely, however, upon reviewing the electrocardiogram that the rhythm was actually atrial flutter with 1:1 A-V conduction and aberrant ventricular conduction. Forty-five minutes after procaine amide administration the rhythm reverted to atrial flutter with 2:1 A-V conduction.

The blood pressure was poorly maintained with large doses of levarterenol. Two episodes of pulmonary edema required phlebotomy 19 and 30 hours after admission. Forty-eight hours after admission pressure was applied for 15 seconds separately over both the right and left carotid sinuses and there was no change in the cardiac rhythm. Pressure over the right eyeball immediately resulted in ventricular fibrillation (Figure 2) which did not respond to direct current shock. Attempts at resuscitation were unsuccessful and the patient expired—60 minutes after eyeball pressure was initiated.

At autopsy the heart weighed 550 gms. There was thrombosis of the anterior descending branch of the left coronary artery with old and recent infarctions of the septal and apical aspect of the left ventricle. There was marked dilation of the left ventricle with an aneurysm beginning at the medial aspect of the left ventricle and extending over into the interventricular septum. Mural thrombi were present in the left ventricle and right atrium. A non-infective thrombo-endocarditis was present on the aortic valve; however, there was no perforation of the valve. The lungs showed chronic passive congestion without emboli or infarcts. The liver showed chronic passive congestion.

DISCUSSION

Eyeball pressure is a commonly used method of inducing vagal stimulation. The reflex evoked by eyeball pressure includes afferent impulses conducted via the ophthalmic division of the trigeminal nerve to the medulla oblongata and efferent impulses transmitted via the vagus nerve to the heart.[2, 13, 14] Pressure on the eyeball and manipulation of the extraocular muscles[15] are known to stimulate the vagus, but it has been shown that the globe need not be present for this effect on the vagus nerve.[16] Section of the trigeminal nerve

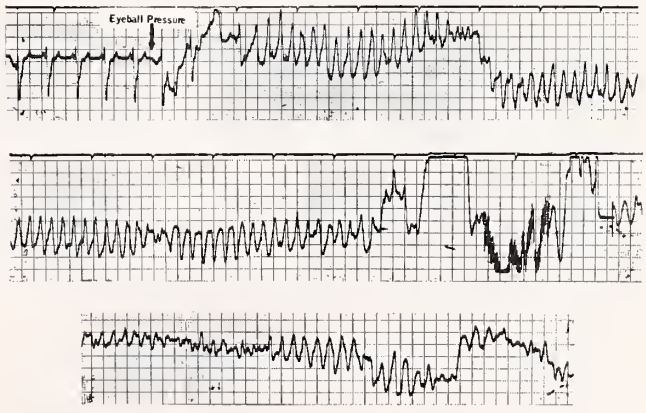


Figure 2. Terminal electrocardiogram demonstrating the effect of eyeball pressure. The strips are continuous.

and retro-orbital block will abolish the reflex. Electrocardiographic changes have been produced in approximately 30-50% of the subjects in whom eyeball pressure was attempted.[13]

Various cardiac arrhythmias have been caused by eyeball manipulation including sinus bradycardia, A-V junctional rhythm, atrioventricular dissociation, atrioventricular block and transient auricular and ventricular tachycardias.[13, 17, 18] Schamroth[18] found that vagal stimulation alone rarely precipitates ectopic rhythms, but a significant percentage of patients who were digitalized and in whom vagal maneuvers were used developed ectopic beats.

We believe this to be the first report of a fatal ventricular arrhythmia directly attributed to eyeball pressure. A patient reported by Landman and Ehrenfeld[6] developed a transient ventricular arrhythmia following eyeball pressure which they interpreted as ventricular fibrillation. We believe the sample of this arrhythmia displayed in their paper is ventricular tachycardia.

Vagal stimulation mediated through carotid sinus massage had long been thought to be a safe procedure. Lown and Levine[19] stated that in their accumulated experience, they encountered no mortality directly due to correctly performed carotid sinus massage. Their only complication was one instance of transitory facial hemiparesis. There have been recent reports of fatalities and, because of certain similarities between these cases and ours, further discussion of these patients is warranted.

Greenwood and Dupler[8] reported a case of ventricular fibrillation induced by carotid massage. Their patient received 3.25 mg of digoxin over a six day period. On the sixth day, the patient manifested atrial flutter with 2:1 atrioventricular conduction. In the next 18 hours, an additional 1.25 mg digoxin and 2.1 gm quinidine sulfate were administered. The resultant rhythm was atrial tachycardia with second degree atrioventricular block and Wenckebach periods. An additional 0.25 mg digoxin was given. Three hours later, application of carotid sinus pressure resulted in ventricular fibrillation.

Porus and Marcus[1] described a patient who presented with a double tachycardia (atrial and A-V junctional). The patient was receiving digitalis leaf (amount not stated) and since he was in pulmonary edema an additional 0.8 mg of cedilanid D was administered intravenously. Thirty-five minutes later, carotid sinus massage resulted in transient depression of the A-V junctional pacemaker without affecting the atrial focus. Repeat pressure was applied five minutes later which produced 24 seconds of ventricular fibrillation. Although spontaneous reversion to the initial rhythm was noted, the patient ultimately expired.

Hilal and Massumi[4] described a patient with atrial flutter with a ventricular rate of 140 who had received moderate doses of digoxin without any effect on the ventricular rate. Carotid sinus stimulation resulted in fatal ventricular fibrillation.

Alexander and Ping[5] reported a case of a patient who developed a paroxysmal atrial tachycardia with cardiac rate of between 140 and 180 immediately after an operation for an adenocarcinoma of the pancreas. Moderate doses of digitalis failed to control the ectopic arrhythmia. Ventricular fibrillation followed carotid sinus stimulation and the patient could not be resuscitated.

A recent report[20] described the effects of carotid sinus stimulation in two patients one of whom developed ventricular fibrillation while receiving large doses of digitalis. The patient was not successfully resuscitated.

The above described cases appear to have a common relationship. They were all receiving moderate to large amounts of digitalis when the arrhythmia was produced by vagal stimulation. Vagal stimulation will generally be potentiated by digitalis.[14] Frequently, large doses of digitalis are required to increase the degree of atrioventricular block in atrial flutter. If the vagus is then stimulated, the response may be exaggerated. Lown and Levine[19] pointed out that when a patient is receiving digitalis, carotid sinus massage may abolish a paroxysm of atrial tachycardia where it had failed to do so prior to instituting the drug. The same principle most likely holds true for other varieties of vagal stimulation.

The mechanism for the production of ventricular fibrillation in the face of digitalis excess is not clearly settled. It is known that with large doses of digitalis, the excitability of the Purkinje conduction system is depressed

but that the ventricular myocardium is more resistant.[21–23] With increasing doses of digitalis, the ventricular refractory period is shortened, but since this effect is not uniformly distributed, a background for the production of ectopic beats is created. Myocardial conduction velocity is decreased with toxic doses of glycosides.[24] This latter effect when associated with an asynchronous myocardial refractory period has a tendency to promote re-entry of impulses. The excess digitalis may also expose or produce automatic foci in the myocardium.[25] Vagal stimulation performed on a subject receiving large amounts of glycosides may by slowing atrioventricular conduction uncover automatic foci by permitting time for diastolic depolarization. An ectopic impulse arising in this manner may fall in the vulnerable phase of a previous ventricular repolarization and lead to ventricular fibrillation. Thus, the recommendation[26] to perform vagal maneuvers in patients as a means of uncovering digitalis toxicity may be hazardous.

We agree with most authors that vagal stimulation generally is an innocuous procedure. However, in patients who are receiving digitalis, increasing the vagal tone may be dangerous and may precipitate serious arrhythmias. If vagal stimulation is considered necessary in patients who are receiving digitalis, preparations should be made for emergency cardiac resuscitation. A rare but serious consequence of vagal stimulation may thus be avoided.

ACKNOWLEDGEMENTS

The authors wish to thank Dr. Martin Dolgin for his valuable assistance in the preparation of this report.

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Orbicularis Oculi Reflex

Technique and Clinical Application

LYNN W. LYON, M.D., and
MAURICE W. VAN ALLEN, M.D.
Iowa City

A NEW TECHNIQUE, elicitation of the orbicularis oculi reflex by electrical stimulation, has been found to be of considerable value in the evaluation of lesions and diseases involving the trigeminal and facial nerves, pons and medulla. This paper will describe this technique and discuss its clinical applications.

HISTORY

A reflex wink to a tap over the supraorbital region of the face was first described by Overend in 1896.[1] Later, it was realized that reflex winking (unilateral contraction of the ipsilateral orbicularis oculi muscle) or blinking (bilateral contraction) could be elicited with tap stimulation in many areas of the face. Wartenberg in 1945[2] recognized that blink reflexes evoked with different maneuvers were probably identical and proposed the unifying term "orbicularis oculi reflex." In 1952, Kugelberg[3] first applied electrodiagnostic techniques to a study of the orbicularis oculi reflex. Using glabellar tap stimulation and recording from surface electrodes over the orbicularis oculi muscles, he demonstrated two separate components of the reflex blink: an early ipsilateral reflex and a late bilateral reflex. Rushworth[4] and Gandiglio and Fra[5] subsequently showed that electrical stimulation of the supraorbital nerve also evokes separate early ipsilateral and late bilateral responses in the orbicularis oculi muscle. The application of this test to clinical problems followed standardization of normal values by Kimura *et al*[6] in this laboratory and Bender *et al.*[7]

The trigeminal and facial nerves are the afferent and efferent limbs, respectively, of both the early and late reflex arcs. The ipsilateral early component is probably a simple cutaneous reflex relayed through the main sensory nucleus of the trigeminal nerve.[8, 9] The bilateral late components are probably transmitted through a multisynaptic arc including the spinal tract and nucleus of the trigeminal nerve. Afferent impulses in the trigeminal nerve enter the pons and descend in the trigeminal spinal tract to the ipsilateral trigeminal spinal nucleus in the medulla with secondary trigeminal pathways then presumably ascending to make connections with both the ipsilateral and contralateral facial nuclei in the pons.

TABLE 1

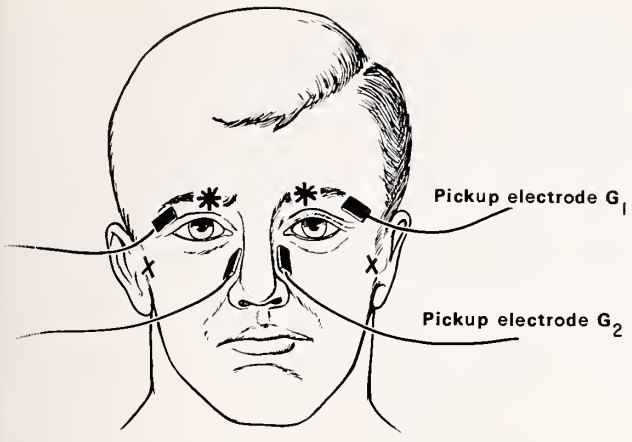
NORMAL RANGE OF LATENCY TIMES
(after Kimura et al)[6]

	Latency (msec.)	
Direct response	3.2 ± 0.8	Difference between right and left sides should be less than 0.6 msec.
Early reflex response	10.6 ± 2.5	Difference between right and left sides should be less than 1.2 msec.
Late reflex responses		
(ipsilateral)	31 ± 10	Difference between ipsilateral and contralateral responses should be less than 5 msec.
(contralateral)	32 ± 11	

METHODS

Methods of orbicularis oculi reflex testing and normal values in this laboratory have been reported (Table 1).[6] Electrode placements are depicted in Figure 1. Bipolar surface record-

Dr. Van Allen is a professor in the Department of Neurology and Neurosensory Center at The U. of I. College of Medicine. Dr. Lyon was an instructor in the Department at the time this paper was prepared; he is now located in Silver Spring, Maryland. The Neurosensory Center is supported by Program-Project Grant No. NS03354 of the National Institute of Neurological Diseases and Stroke, Bethesda, Maryland. Neurosensory Center Publication No. 212.



X Facial nerve stimulation (direct response)

✱ Supraorbital nerve stimulation (reflex responses)

Figure 1. Diagram of electrode placements for orbicularis oculi reflex testing showing: recording electrodes over orbicularis oculi muscles; site of facial nerve stimulation for direct response (X); and site of supraorbital nerve stimulation for reflex responses (*).

ing electrodes are placed over the orbicularis oculi muscles. Percutaneous stimulation with a bipolar electrode is employed delivering a supramaximal shock of 50-150 volts and 0.1-1.0 msec. duration. The facial nerve is stimulated just anterior to the mastoid process (Figure 1) eliciting a direct response of the facial nerve (Figure 2). Supraorbital nerve stimulation at the supraorbital foramen (Figure 1) is performed to elicit the ipsilateral early and bilateral late components of the orbicularis oculi reflex (Figure 2). Evoked potentials are displayed on a dual trace oscilloscope after conventional amplification using a two channel

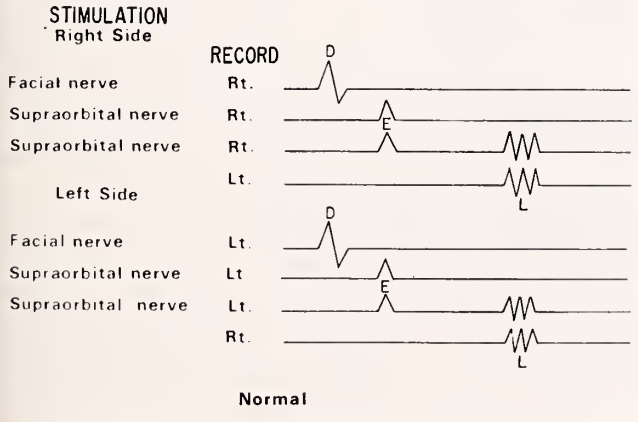


Figure 2. Diagram of normal orbicularis oculi reflex showing: direct response to facial nerve stimulation (D); ipsilateral early reflex response to supraorbital nerve stimulation (E); and bilateral late reflex responses to supraorbital nerve stimulation (L).

amplifier. Oscilloscope sweeps are photographed (Polaroid camera).

CLINICAL APPLICATION

Kimura and Van Allen *et al* have demonstrated in this laboratory the value of orbicularis oculi reflex testing in the evaluation of the facial[6, 10] and trigeminal[10, 11] nerves, polyneuropathy,[12] multiple sclerosis,[13-15] brainstem neoplasms and syringes,[16] vascular lesions of the brainstem,[17, 18] and coma.[19]

Trigeminal Nerve. Since the trigeminal nerve carries the afferent limb of both the early and late reflex arcs, lesions of this nerve will eliminate or delay both responses when the supraorbital nerve is stimulated on the involved side (Figure 3). When delay in reflex response is found, trigeminal nerve deficits may be demonstrated before they become clinically apparent. This is particularly helpful in

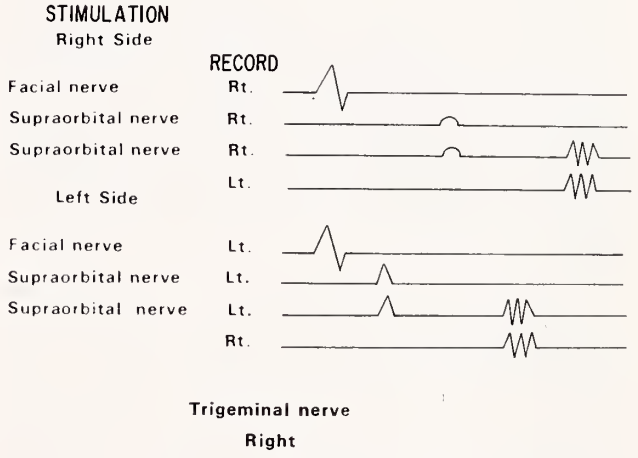


Figure 3. Diagram of orbicularis oculi reflex with a right-sided trigeminal nerve lesion showing delay of the right early reflex response and delay of both the right and left late reflex responses to right supraorbital nerve stimulation.

differentiating idiopathic trigeminal neuralgia from cases of facial pain due to compressing lesions of the trigeminal nerve such as acoustic neuromas as latencies of the orbicularis oculi reflexes are normal in the former situation while delayed in the latter.[10, 11]

Facial Nerve. Injuries of the facial nerve result in either neurapraxia or denervation. Neurapraxia is a local and reversible block to conduction of impulses in a nerve in the absence of nerve fiber degeneration. Nerve excitability and conduction distal to the site of injury remain normal. Electromyography of the paralyzed facial muscles shows no evidence of de-

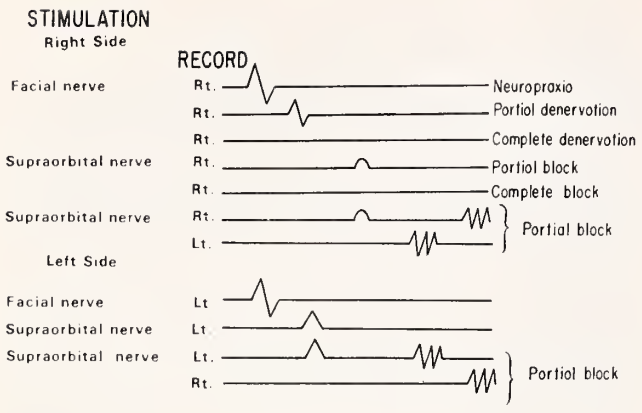


Figure 4. Diagram of orbicularis oculi reflex with a right-sided facial nerve lesion (see text).

nervation, i.e., fibrillation potentials or sharp positive waves. Recovery is usually rapid. In contrast, denervation denotes local destruction of the axon at the site of injury with distal Wallerian degeneration. Nerve excitability is diminished and conduction distal to the lesion is slowed and imperfect (partial denervation) or absent (complete denervation) after three to four days. Electromyographic evidence of denervation appears later, two to three weeks after injury. Recovery may take place only by the slow process of regeneration of nerve fibers.

In the evaluation of peripheral facial paresis, measurements of distal latency (direct response of the orbicularis oculi muscle to stimulation of the distal segment of the facial nerve) are performed in addition to study of the early and late reflex responses to supraorbital nerve stimulation (Figure 4). In neurapraxic lesions, the distal latency is normal. In denervation, distal latency is prolonged or absent. Since the facial nerve is the efferent limb for both the early and late reflex components of the orbicularis oculi reflex, facial nerve lesions cause delay or absence of these reflexes on the involved side. Thus, in the presence of a right-sided facial nerve lesion (Figure 4), the right early reflex response is delayed (partial block) or absent (complete block). Similarly, the right late reflex response to either right or left supraorbital nerve stimulation is delayed or absent.

This method of testing is particularly useful in the evaluation of Bell's palsy.[6] It has the distinct advantage of reflecting the functional status of the entire facial nerve including the involved intraosseus segment while other electrodiagnostic methods (i.e., measurements of nerve excitability, distal latency and strength-duration curves) are dependent entirely upon the status of the segment distal to the stylomastoid foramen. In Bell's palsy, 10 to 15 per cent of those cases destined to undergo facial nerve degeneration do so after the first week instead of at the end of the third or fourth day as is usual. Therefore, retained nerve excitability to direct stimulation of the facial nerve (direct response) during the first week following onset, although a good prognostic sign, does not rule out the possibility of late degeneration.

If measurement of the orbicularis oculi reflexes is combined with determination of distal latency, a more reliable early prognosis can be offered in cases of Bell's palsy. Patients (undergoing testing one week after onset of Bell's palsy) may be divided into three categories as described by Kimura *et al.*[6] The first group showing no distal nerve excitability have a poor prognosis as this indicates nerve degeneration. The second group showing retained distal nerve excitability and reflex responses (even with delayed latencies) have an excellent prognosis as this is compatible with functional recovery of the involved proximal segment before distal degeneration has occurred. The third group showing retained distal nerve excitability but absent reflex responses have a generally good prognosis because the distal segment of the nerve has not yet degenerated. As noted above, however, late degeneration may occur. In this situation, serial measurements should be performed until the reflex responses reappear before distal degeneration occurs (good prognosis) or until the direct response begins to disappear before recovery of the reflex responses (poor prognosis). Surgical treatment of Bell's palsy may then be reserved for the poor prognosis group.

Pons and Medulla. Central delay in the orbicularis oculi reflex arcs may occur with brainstem involvement in multiple sclerosis, posterior fossa neoplasms and syringes, and vascular lesions.

Pontine lesions may alter the early reflex or the late reflexes or both.[13–17] With lesions in the region of the main sensory nucleus of the trigeminal nerve, the early reflex on the involved side will be delayed. The late reflex re-

sponses to supraorbital nerve stimulation on the invloved side will be delayed or normal depending on whether the late reflex pathways are interrupted as they pass through the pons to descend in the trigeminal spinal tract. With pontine lesions in the region of the facial nerve nucleus, responses similar to those discussed before under facial nerve lesions may be seen. Frequently, pontine lesions are more extensive causing unilateral or bilateral deficits in both afferent and efferent aspects of the reflex arcs.

While alteration of the early reflex is relatively specific for pontine lesions, the late reflexes are altered not only by pontine lesions but also by medullary lesions. As noted above, the multisynaptic pathway of the late reflex is thought to include the spinal tract and nucleus of the trigeminal nerve in the medulla. Thus, lesions such as Wallenberg's syndrome of lateral medullary infarction cause delay of the late reflex responses to supraorbital nerve stimulation on the involved side[18] (Figure 5).

Analysis of the orbicularis oculi reflex is also useful in the evaluation of coma.[19] The late component of the reflex is essentially absent in coma regardless of etiology reflecting diffuse suppression of its multisynaptic reticular system pathway rather than local brainstem damage. The early component of the reflex is of value in differentiating coma due to metabolic-toxic causes and supratentorial lesions from primary or secondary pontine lesions as it is generally altered only in the latter.

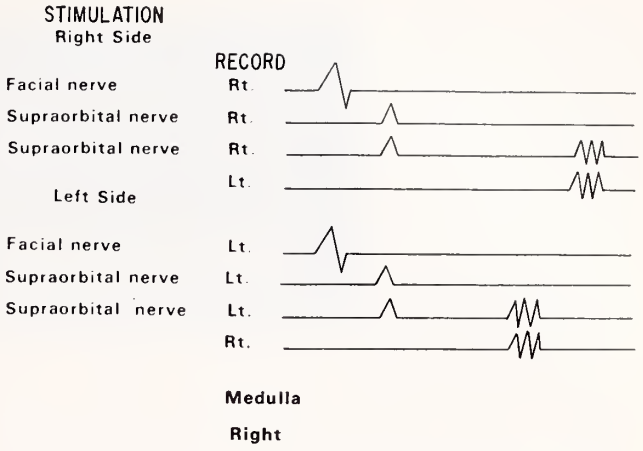


Figure 5. Diagram of orbicularis oculi reflex with a right sided Wallenberg's syndrome showing delay of the late reflex responses to right supraorbital nerve stimulation.

SUMMARY

Elicitation of the orbicularis oculi reflex by the electrodiagnostic technique of supraorbital nerve stimulation is of value in the evaluation of lesions and diseases involving the trigeminal and facial nerves, pons, and medulla. Clinical usefulness of such testing has been demonstrated in trigeminal and facial nerve lesions, polyneuropathy, multiple sclerosis, brainstem involvement in posterior fossa neoplasma and syringes, vascular lesions of the brainstem and in coma.

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The references noted in this article are available on request from either the authors or the JOURNAL OF THE IOWA MEDICAL SOCIETY.

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Editorials

M. E. ALBERTS, M.D., Scientific Editor

LET'S BE NUMBER ONE

The football season is finally over. The No. 1 college team has been selected—it has proven itself on the gridiron battlefield. *Nebraska leads again!* Now, who will be victorious in the Super Bowl? By the time this is published we shall know.

"No. 1" has another connotation. We in the medical profession must discharge our skills and professional duties so ably that we will not fall runnerup to any profession or trade. Ours must be a constant effort to maintain standards, set by ourselves, and to provide the best possible care for our patients. Recent inspections by accreditation teams in our hospitals have stressed standards and compliance with written guidelines—some very necessary, others seemingly quite elementary and appearing simply as a further addition to our abundant paper work. More and more controls are being placed on the providers of health care. It is obvious that physicians must become more active in formulating the rules and regulations under which organizations operate. By so doing, we have a chance to subdue the third party pressures on our professional activities. Regulatory measures must be consistent with fairness to the patient and society as a whole. They must afford the best possible medical care, and they must allow us to maintain our own identity as individuals with feelings and the desire to be free of the chains that compel us to act in ways different from the general consensus of the profession. Let's be "No. 1" in the eyes of society as well as in our own minds.—M.E.A.

AND THIS, TOO, SHALL PASS —(WE HOPE)

The management of the child who may have ingested a foreign object may present serious considerations for the attending physician. The location of the foreign body as well as its progression (or lack of it) along the intestinal tract are of paramount importance.

A recent report of a total of 660 patients admitted to two English hospitals revealed that 250 cases (38%) were treated surgically, while the other 410 cases had a natural passage of the foreign object.* It must be added that these 660 cases represented only the ones admitted to the hospital; many others were seen in the outpatient departments and discharged with full anticipation of uneventful passage of the foreign body.

The majority of ingested foreign objects which cause serious problems do so in the esophagus (20-30%) with impaction commonly occurring at the sites of anatomic construction. Once the object has passed into the stomach uneventful passage through the intestinal tract may be expected in 80-90% of cases.

In this series the average time for passage of a foreign object through the intestinal tract was 5.1 days with some variation according to

*Spitz, Lewis: Management of ingested foreign bodies in childhood, BRIT. MED. J., 4:469-472, 1971.

the shape of the object—non-sharp ones sooner, and those pointed on both ends up to 7 days.

The author recommends several principles of management. The endoscopic removal of impacted objects in the esophagus should be early although rounded or cuboidal objects in the lower third may be observed for up to 12 hours, inasmuch as a brief delay in this area with subsequent natural passage is not unusual. Conservative management is strongly recommended in cases of objects in the stomach. No cathartics should be given, and certainly having the child eat cotton and such additives is not indicated. If there is obvious danger of perforation because of a long object in a small patient or no progression in 10-12 days surgical intervention is necessary. For objects in the intestine a wait of up to 2-3 weeks may be necessary and surgery until that time is not indicated unless a complication has occurred.—M.E.A.

UNWANTED (?) MEDICAL PUBLICATIONS

Occasionally a loud cry is heard among physicians that they are receiving an ever-increasing flow of unsolicited medical publications. Some have gone to the ridiculous extreme of weighing their mail and estimating how many tons eventually reach the mails. Furthermore, estimates have been ventured as to the number of words and the number of hours it would take to read all of the words.

I submit that a different look must be taken at the entire picture to get a fair perspective. No physician, I am sure, reads all the publications—some he scans, others he checks the table of contents, others he totally rejects, and a few he reads. The purpose has been accomplished because these periodicals are customarily supported by advertisers and a brief glance at an advertising message often is enough to make a mental imprint.

The ecologists might have a point in claiming pollution enters in the picture—what to do with all the paper. However, recycling could conquer that. How many people are involved in the productions of these publications—paper manufacturers, printers, advertising salesman, etc.? Unemployment would increase. Doesn't private industry have a right to build up empires of available jobs just as government does?

Furthermore, let us admit it—some of the unsolicited journals are excellent. They are well printed, excellently illustrated, and in some instances provide information (e.g., economics or culture) not available in any of the subscription journals. Are these publications truly unwanted by the majority?—M.E.A.

I REMEMBER WHEN—DO YOU?

When pneumococcic serum was developed in 1938. The news that pneumococcic organisms could be differentiated into various types had been presented to us. Because of this Lederle Laboratories had developed a serum which was very efficacious if proper typing was undertaken prior to the administration of the serum. The dramatic and very sudden recovery from acute pneumococcic pneumonia was beyond belief with the use of the right serum. By 1940, practically the whole Lederle Laboratory, which had been developed at a great deal of expense, was discontinued because of the sudden development of the earliest forms of sulpha, the first one of which was prontosil, and then neoprontosil, then sulphas in the various forms. The development and manufacture of serum had progressed to a very efficient point and within a year to a year and a half, all was for naught. I have often wondered how much money Lederle Laboratories lost on this venture, because I am sure they did not have time to recover the cost of developing this particular laboratory procedure.—O. N. GLESNE, M.D., *Chairman, IMS Historical Committee.*

University Drug Letter

by S. J. CURTIS, M.D.

THE INTELLIGENT USE OF LIVER FUNCTION TESTS

The number of liver function tests available to evaluate the patient with hepatic disease is probably exceeded only by the myriad of functions the liver actually performs. These burgeoning biochemical and radiologic procedures indicate that no single test now provides all the needed information. For the intelligent use of a given test, one should know its sensitivity in detecting abnormalities, its specificity, its ability to distinguish hepatocellular from extrahepatic disorders, and its ability to estimate the severity of hepatic disease. This discussion will review the more commonly used liver function tests with these points in mind. Due to the limitation of space no attempt will be made to discuss procedures such as cholecystography, splenoportography, celiac arteriography, or radioisotope photoscanning of the liver which are important diagnostic procedures in liver disease. *Liver function tests are best employed in conjunction with a thorough clinical appraisal of the patient: Carefully selected tests are used only to supplement the clinical findings.*

SERUM BILIRUBIN

The major value of fractionating the serum bilirubin is to detect diseases characterized by *un*conjugated "free" hyperbilirubinemia (i.e.—the indirect component exceeds 1.0 mg.% *and* the direct component is less than 20% of the total serum bilirubin) as in intravascular hemolysis. When the conjugated (direct) bilirubin accounts for 30% or more of the total bilirubin, fractionation does not help to determine whether the jaundice is intrahepatic or extrahepatic in origin. The total serum bilirubin is not a sensitive indicator of hepatic cell damage or extrahepatic obstruction since severe hepatic parenchymal damage may be present in the absence of jaundice and in 25% of documented common duct calculi there is no associated jaundice. On the other hand, an elevation of the "conjugated" bilirubin fraction does imply mild or early liver injury even though the total serum bilirubin may still be normal.[1] The serum bilirubin level seldom suggests the etiology of the hyperbilirubinemia, although an uncomplicated hemolytic process will rarely result in a total serum bilirubin of greater than 5.0 mg./100 ml., and parenchymal liver disease or extrahepatic obstruction due to biliary calculi result in lower serum bilirubin values than obstruction secondary to a malignancy. The appearance of jaundice in a cirrhotic patient carries a grave prognostic implication: 80% will die within two years of the appearance of icterus and 10% will survive five years.[2] In acute alcoholic hepatitis, hyperbilirubinemia in excess of 5 mg.% indicates a poor prognosis as does the continued rise in bilirubin associated with a fall in serum transaminase activity in patients with fulminant hepatitis (drug or viral induced).

URINE BILIRUBIN

Only conjugated (water soluble) bilirubin appears in the urine, and there is no detectable bilirubin in the urine of an individual free of hepatobiliary tract disease. The test for urine bilirubin is simple, inexpensive, sensitive (0.05 mg./100 ml. of urine) and specific. The determination of the urine bilirubin is important in the following situations: a) to confirm the presence of clinically suspected icterus; b) an early indication of hepatocellular injury or obstruction as the presence of bilirubin in the urine may even antedate a rise in the direct serum bilirubin; and c) the absence of bilirubin in the urine in the presence of icterus suggests *un*conjugated hyperbilirubinemia (hemolysis, Gilbert's Disease) since only the conjugated bilirubin is excreted in the urine.

SERUM ENZYMES

A) **Transaminases**—The two commonly measured transaminases in hepatic disease are the

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Dr. Curtis is an assistant professor in the Department of Internal Medicine at the U. of I. College of Medicine. This editorial appeared initially in the October, 1971 issue of DRUG LETTER, a monthly intramural publication of University Hospitals prepared jointly by the Pharmacy Department and the Clinical Pharmacology Committee.

serum glutamic oxaloacetic (SGOT) and the serum glutamic pyruvic transaminase (SGPT). Transaminase activity determinations are sensitive detectors of hepatocellular injury since elevated levels are among the first biochemical abnormalities found following injury to the liver cell. This sensitivity is somewhat compromised, however, by the lack of organ specificity as myocardial and skeletal muscle as well as the kidney are rich in transaminase activity. SGPT activity is more specific for *acute* hepatic parenchymal cell damage than is the SGOT, but is less sensitive than the SGOT in detecting *chronic* liver disease states. Transaminase activity values in excess of 400 units/ml. of serum usually indicate acute hepatocellular injury from viral or drug induced hepatitis or circulatory collapse with hypotension. Values exceeding 400 units have been recorded in extrahepatic biliary tract obstruction but are exceedingly uncommon. Serum transaminase values between normal and 400 units/ml. have no selective diagnostic function as they occur commonly in patients with acute and chronic hepatocellular disease as well as in extrahepatic biliary tract obstruction. The degree of elevation of the serum transaminase activity has no prognostic value in hepatic disease. The level of activity may be only modestly elevated (200-300) in episodes of fulminant necrosis with "acute yellow atrophy," whereas rapid recovery from hepatitis has been observed when the serum value exceeded 10,000 units/ml.

B) **Alkaline Phosphatase**—In the normal adult the serum alkaline phosphatase is derived principally from bone, the hepatobiliary tract and intestinal tract; the osseous component accounts for 50 to 75% of serum activity.[3] The placenta is the fourth important source; activity is "physiologically" elevated during growth and pregnancy. The major value of the serum alkaline phosphatase in liver disease is in differentiating hepatocellular from obstructive jaundice: *a low value strongly argues against obstructive jaundice.* A low elevation (less than 3 times normal) is more significant as a diagnostic aid than is a high one, since the enzymatic activity may be substantially elevated not only in extrahepatic biliary tract obstruction but also in intrahepatic cholestasis (e.g.—cholangiolitic hepatitis or primary bilary cirrhosis). In addition, the alkaline phosphatase level is a sensitive index to the presence of an infiltrative disease (e.g.—granulomas, abscesses, neoplasms) involving the hepatic parenchyma. When a persistently elevated serum alkaline phosphatase activity is an isolated abnormality in the nonpregnant adult patient, the inability to distinguish between osseous and hepatic origins limits the diagnostic value of this enzyme. Two approaches to differentiate the site of origin are: a) the alkaline phosphatase from bone is more heat labile than that from the hepatobiliary tract; and b) assay of leucine aminopeptidase and 5′-nucleotidase activities which correlate well with hepatobiliary alkaline phosphatase and are not found in bone.

C) Lactic Dehydrogenase—This enzyme is ubiquitously distributed in tissues of the body and is not a sensitive test for hepatic cell damage, however, if the LDH level is 5-10 times normal and the SGOT is normal or only slightly elevated, intravascular hemolysis or malignant neoplastic involvement of the liver should be considered.

SERUM PROTEIN CONCENTRATIONS

The analysis of serum protein concentrations, irrespective of the methodology used in their determination, suffers from three limitations: 1) it is not a sensitive indicator of hepatic cell dysfunction; 2) the changes detected are not specific for liver parenchymal cell disease; and 3) it has little value in the differential diagnosis of liver disease (e.g.—hypoalbuminemia and hyperglobulinemia occur in all types of chronic liver disease). Immunoelectrophoresis provides one notable exception: in patients with obstructive jaundice a very high IgM level suggests *primary* biliary cirrhosis rather than extrahepatic biliary tract disease or drug induced intrahepatic cholestasis.[4] Protein analysis may be used to estimate progression from acute to chronic liver disease and to assess the "responsiveness" of chronic disease to treatment. If the gamma globulins rise to 40% or more of the total proteins or if the total globulins exceed 4.0 Gm.% and the serum albumin concentration falls below 3.0 Gm.%, progression to a chronic active disease is indicated. In a decompensated alcoholic-nutritional cirrhotic with an albumin of 2.0 Gm.% a rise in albumin concentration with therapy indicates a more favorable prognosis than does a concentration which remains "fixed" despite the ingestion of a nutritional diet and abstinence from alcohol.

FLOCCULATION TESTS

The three most commonly used flocculation tests are the cephalin-cholesterol flocculation, the thymol turbidity and zinc sulphate turbidity which depend upon qualitative and quantitative changes in the serum proteins associated with hepatocellular damage. These tests have been largely superceded by determinations of serum transaminases, alkaline phosphatase, and by serum protein analysis. Flocculation tests are useful in the jaundiced patient whose serum transaminase and alkaline phosphatase activities are moderately elevated: a negative flocculation result points to obstruction while a positive test suggests hepatic parenchymal cell injury.

PROTHROMBIN TIME

The prolonged prothrombin time is not specific for hepatic disease as it is affected by congenital deficiencies of coagulation factors and by various drugs. Neither is it a sensitive measure of liver cell injury as the prothrombin time may be normal



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or only slightly prolonged in severe cirrhosis. Parenteral administration of vitamin K_1 to patients with reduced prothrombin activity does not always distinguish between "hepatocellular" and "obstructive" jaundice since extrahepatic biliary tract obstruction is frequently associated with hepatic parenchymal cell damage. The prothrombin time has prognostic value in both acute and chronic hepatocellular disease. A reduced prothrombin activity (<40% of control) which is unresponsive to parenteral vitamin K_1 administration is frequently the only liver function test that suggests the imminent development of fulminant hepatic necrosis in acute viral or drug induced hepatitis. In chronic hepatocellular disease, a prothrombin activity which is "fixed" at 50% or less of normal carries a poor prognostic implication, particularly after portacaval shunting.[5]

BLOOD AMMONIA

The blood ammonia concentration is used principally to assist in the diagnosis of encephalopathy associated with liver cell failure. Although there is no consistent relationship between the ammonia blood level and hepatic encephalopathy the state of consciousness correlates with the arterial blood ammonia concentration better than any other biochemical measurement.[6] In 10% of patients with typical hepatic coma, however, the ammonia level is normal, while many patients with elevated ammonia levels may show no changes in their sensorium.

BROMSULPHALEIN (BSP) EXCRETION

In the standard test 5.0 mg./Kg. of body weight of dye is given intravenously and the amount retained in the serum 45 minutes later is measured. In 718 normal males, over 50% had <4% retention; 90% had <8% retention while 99% had <14% retention. (Normal should be <8% retention in 45 minutes.[7]) The BSP retention test is probably the most sensitive test of hepatic function: it is abnormal in liver injury (parenchymal and obstructive) of all types, but has no value in the differential diagnosis of jaundice unless one suspects the Dubin-Johnson syndrome. In the absence of jaundice, the test has three major uses: 1) the detection of cirrhosis in which abnormal retention has been discovered in over 90% of histologically proven cases. The degree of retention bears no constant relationship to the degree of morphological damage to the liver, however, serial determinations will afford a criterion for following the course of the disease; 2) a normal BSP in the face of upper gastrointestinal hemorrhage is strong evidence that the individual is free of liver disease and makes esophageal variceal bleeding an extremely unlikely diagnosis; and 3) the detection of infiltrative disease (granulomas, cysts, amyloid, neoplasm) in the hepatic parenchyma. The principal limitations of the BSP determinations are three: 1) with the possible exception of the Dubin-

(Please turn to page 86)

Medical Assistants

by TENORA MEYER

THE LEGAL ANGLE

At a recent workshop in Mason City, held with a Blue Shield meeting, we were privileged to hear Mr. Brad Kiesey, an attorney with the Mason City law firm of Shepard & Shepard. Mr. Kiesey spoke on "Malpractice Liability" and the following excerpts are from his remarks.

"The spectre of malpractice liability frightens every professional. . . . The number of lawsuits has been increasing, verdicts for plaintiffs, when rendered, have risen sharply with the increase in medical costs and income rates which are among the elements of damage used in arriving at verdicts. . . .

"And yet, I cannot help harboring an abiding conviction that the law of professional malpractice—medical, legal, accounting—is presently an important vehicle by which the professions may hope to maintain the confidence of the public they serve. Because of newer and narrower specialties, the practice of medicine and other professions is carried on more and more at levels far beyond what the layman can be expected to understand. It is through the medium of lay fact-finders—jurors and judges—who are not doctors, that the public maintains its finger on the pulse of medical standards.

"Professional experts are still necessary . . . to educate the jury or judge as to what the *profession* considers to be proper conduct in a particular situation. It is nevertheless the layman who has the ultimate decision on how the technical standards are applied to practitioners in particular situations.

"If the standards of medical practice are not understood by laymen outside the courtroom, blame the doctors for being uncommunicative, blame the lawyers for being unclear, blame the journalists for not covering the subject, but don't place the blame on the law of medical malpractice. It is in my view a necessary mechanism that keeps society as we know it functioning more smoothly.

"I do not wish to imply that medical assistants, registered nurses, licensed practical nurses, nurses aides, and medical secretaries cannot understand the standards of care being applied to them. It is just that no one can . . . predict in advance just what may be malpractice in a given situation. For example, it is easy to see that it would be malpractice for a receptionist to perform delicate surgery in the office waiting room. The difficulty arises when she knows where the doctor keeps his burn ointment and, while the doctor is out, a burn victim in pain enters the office. Predicting with absolute certainty what the experts and lay fact-finders would say if her treatment proves unsuccessful or harmful is perhaps downright impossible. Ultimately, only the jury knows what malpractice is. But if the jury ever seems to overstep the bounds of justice, there are always procedures for appellate review and for legislative readjustment. . . .

"Another problem that worries medical assistants is whether negligence on their part may result in liability to their doctor or hospital employer. Generally, the answer is yes, if the employee is acting within the scope of his employment and could reasonably be expected to be under the supervision of the employer. The law proceeds on the theory that the master is responsible for negligent injury caused by his servants while the servants were under his control. However, acts performed by the assistant while off the job or not under the employer's control remain the sole responsibility of the assistant. Malpractice liability insurance with limits high enough to cover the large verdicts rendered recently is thus nearly essential for the employee as well as the employer. The converse of the master-servant doctrine is not generally true; that is, the malpractice of the employer is not charged to the employee if the employee did not participate therein.

"One further legal problem can arise to plague medical assistants in frequent office-type situations. It might perhaps best be illustrated by the facts of a 1929 New Jersey case in which a doctor promised a man with a severely scarred hand that a transplant of skin from his chest would give him *a 100 per cent perfect hand.* In reliance on that promise, the man submitted to the surgical procedure, but in time the new skin on his hand scarred badly and began to grow hair as it had on his chest. The man sued and

Iowa Association Medical Assistants

(Continued from preceding page)

won a verdict for damages. He won, not because of negligence by the doctor, but because the doctor had made a contract with him for *perfect* restoration of the hand and the doctor's failure in this regard gave the man an action for breach of contract.

"Under the law of agency, it is common that an employer will be bound by promises made by his employee if the employee had apparent authority to make such promises. For this reason, it would be well for medical assistants who regularly handle the business details of the doctor-patient relationship (such as billing, insurance claim submission, arrangement for hospitalization, receipt of complaints, etc.) to be doubly careful not to make unreasonable representations or promises on which the patients may rely and on which the employing physician may ultimately have to make good."

As medical assistants, we can conclude from these thoughts that knowledge in our field and the wise application of it are essential and can give us confidence in performing our tasks.

TENORA MEYER

University Hospitals Drug Letter

(Continued from page 84)

Johnson syndrome, it offers no aid in the differential diagnosis of jaundice; 2) there exist many conditions which cause false positive results (e.g. —administration of iodopanoic acid (Telepaque) in the preceding 24 hours, obesity, febrile states, exercise, diabetes mellitus, hyperthyroidism, Cushing's syndrome and postoperatively after abdominal surgery); and 3) its administration may cause occasional toxic effects which range from thrombophlebitis at the injection site to circulatory collapse (0.6% in more than 1,000 injections).[8]

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REPORT FOR DECEMBER 1971

Diseases	Dec. 1971	1971 to Date	1970 to Date	Most December Cases Reported From These Counties
Amebiasis	1	4	2	Mahaska
Brucellosis	4	30	60	Dubuque
Chickenpox	964	7171	5876	Dubuque, Linn, Polk
Conjunctivitis	77	529	380	Jackson, Woodbury
Encephalitis				
Viral	1	5	4	Dubuque
type unspecified	2	2	3	Louisa, Montgomery
Gastrointestinal				
viral infection	1521	8953	1649	Crawford, Polk
German measles	31	751	2093	Black Hawk, Des Moines
Gonorrhea	711	6115	5556	Black Hawk, Polk, Scott
Histoplasmosis	2	21	22	Dubuque, Linn
Impetigo	65	596	777	Linn, Polk
Infectious hepatitis	23	303	350	Dubuque, Polk
Infectious				
mononucleosis	92	1083	597	Johnson, Linn
Influenza,				
lab confirmed	2	24	15	Clinton, Jackson
Malaria, imported				
P. falciparum	1*	3	4	Polk
P. vivax	1*	25	28	Polk
Measles	153	2717	1144	Des Moines
Meningitis				
Aseptic	1	5	1	Linn
Bacterial	2	3	2	Buena Vista, Crawford
H. influenza	1	6	4	Pocahontas
Meningococcal	2	15	13	Black Hawk, Muscatine
Viral	1	7	11	Scott
type unspecified	3	16	16	Buena Vista, Scott, Winnebago
Mumps	1235	5750	3546	Dubuque, Linn
Pneumonia	143	921	1006	Scott
Rabies in animals	23	240	136	Scattered
Rheumatic fever	6	57	54	Winnebago
Ringworm, body	16	161	241	Polk, Pottawattamie
Roseola	1	29	0	Polk
Salmonellosis				
S. blockley	1	7	5	Webster
S. newport	2	15	5	Mahaska, Scott
S. oranienburg	2	5	4	Dallas
S. typhimurium	3	51	33	Dubuque, Polk, Tama
S. typhimurium				
var. copenhagen	1	6	4	Scott
Group B	4	6	5	Johnson
Shigellosis				
S. sonnei	20	200	80	Black Hawk, Scott
Streptococcal				
infections	659	6758	6904	Johnson
Syphilis	39	602	543	Polk, Scott
Tuberculosis, active	12	132	129	Linn, Polk
Whooping cough	15	79	22	Black Hawk, Mills

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BOOK REVIEWS

THE HUMAN HEART: A GUIDE TO HEART DISEASE. Second Edition, ed. by *Brendan Phibbs,* M.D. (St. Louis, C. V. Mosby Company, 1971, $5.75).

This volume, which began as a manual for patients with heart disease, has now been expanded to serve also as a textbook for nurses, technologists and other paramedical personnel.

The normal anatomy and physiology of the heart, the mechanics of congestive failure, and disease of the valves and myocardium are discussed. There are lively discussions of hypertensive and coronary heart disease, the latter by Dr. George C. Griffith of the University of Southern California.

Congenital heart malformations are the subject of a chapter by a Scotch pediatrician, Dr. Colin H. M. Walker. Dr. Robert Patrick, an anesthesiologist, co-authors a helpful explanation of the precautions surrounding the cardiac patient who goes to surgery. The mechanism and value of cardiac catheterization are discussed by Dr. Lane Craddock of the University of Colorado. Recent advances in open heart surgery, first aid for heart attack victims, and pregnancy and heart disease are other timely topics.

The book is easy and interesting reading for lay and technical personnel, with 102 clear line drawings, diagrams and other illustrations to supplement the chatty text. It will be of only incidental interest to physicians.—*Herman J. Smith,* M.D.

MANAGEMENT OF JUVENILE DIABETES MELLITUS, Second Edition, by Howard S. Traisman, M.D. (St. Louis, C. V. Mosby Company, 1971, $19.75).

There is no doubt that the management of the child with diabetes mellitus is unique. This book deals with the disease in considerable detail. When one considers that there are approximately 1.3 million children in the world with diabetes mellitus, and that it is the eighth leading cause of deaths in children, it behooves the physician to know as much as possible about this disease state. This book is an excellent reference for the physician as well as the pediatric nurse.

The appendices add excellent advice in a concise form. Included are instructions for nurses on care of these patients, as well as the type of instruction to provide parents. Also there is an excellent method of fluid and electroylyte management. The final appendix lists many sugar-free drug preparations, though some of these must be deleted from the list inasmuch as some of them have been revised in recent months.

Try this book. You'll like it.—*M. E. Alberts,* M.D.

SURGICAL ANATOMY, VOLUMES I AND II, Fifth Edition, by Barry J. Anson, M.A., Ph.D., and Chester B. McVay, Ph.D., M.D., F.A.C.S. (Philadelphia, W. B. Saunders Company, 1971, $45).

The fifth edition of this excellent text brings up to date a fine example of its kind. The drawings are accurate, readable and representative. Clinical material is well correlated with the surgical anatomy. Every surgeon would do well to utilize this work for reference and review.—*James E. Irwin,* M.D.

CLINICAL DISORDERS OF IRON METABOLISM, Second Edition, by Virgil F. Fairbanks, M.D., John L. Fahey, M.D., and Ernest Beutler, M.D. (New York, Grune & Stratton, Inc., 1971, $25).

This text is a complete review of the literature on the subject of iron metabolism. The authors used 1,700 articles from the literature to prepare this text and more than 40 per cent of these were published in the last eight years. Bibliographic listings make up 98 of the book's 477 pages.

The book is written interestingly and has much information that can be easily obtained from the text. While the style of writing is generally good, on occasion it is somewhat disconcerting to find a positive statement made in one paragraph, refuted by a quotation from the literature in the next paragraph, only to have that opinion reversed by a succeeding reference from the literature.

Sometimes these continual references to the literature lead to contradictory statements. For example, on page 204 the statement is made that, "Contrary to common belief, iron medication does not interfere with the outcome of these tests" . . . that is, tests for occult blood in the stool. On page 207 it is stated, "conversely, positive benzidine or ortho toluidine tests in patients who are not on meat free diets or who are receiving oral iron medication do not necessarily imply bleeding." The reader is left to form his own opinion on the effect of oral iron on the outcome of the tests of stool for occult blood.

My only other criticism is the illustrations, particularly the photomicrographs, suffer greatly from lack of reproduction in color. In general the book should be of value to hematologists, internists and pediatricians.—*Wallace Rindskopf,* M.D.

THE FAMILY AND ITS FUTURE, ed. by Katherine Elliott, Ciba Foundation Symposium. (London, J&A Churchill, 1970).

This monograph is a compilation of a symposium held in London in March 1970 to consider the family of the future. The discussions are thought-provoking, to say the least, inasmuch as many ideas presented seem totally unacceptable to a conservative-minded individual as I am. Examples: (pg. 132) "I agree with Professor Fox that maybe there should be more illegitimate children. There is a tremendous need and anxiety for adoption. . ." (pg. 197) "We seem to be moving towards a world in which it would seem that everybody would be happier with a neuter gender, and with a machine that could produce a baby without involving people in the event."

Are these thoughts true reflections of our present concepts of unisex, and the emancipation of women? The discussion in this monograph certainly gives food-for-thought, for some ideas are certainly "far out" while others make sense.—*M. E. Alberts,* M.D.

PREVENTIVE MEDICINE IN WORLD WAR II, editor in chief, Col. Robert S. Anderson, M.C., USA. (Washington, D. C., Superintendent of Documents, Government Printing Office, 1969, $8).

This volume examines "Special Fields" in Preventive Medicine not covered in a previous war. It discusses disabilities due to environmental and climatic factors which assumed a new importance in WWII. Cold injuries were confined to frontline fighting while injuries from heat were three times greater in the Continental U. S. than in the theaters of operation. The volume contains the first information about preventive medicine for enemy prisoners of war.

Medical laboratories were established militarily in 1926 but in WWII they achieved major importance. Altogether this is an excellent book presented in a readable and interesting fashion. It is a superb contribution to the Preventive Medicine Series.—*C. Harlan Johnston,* M.D.

Books Received

A TEXTBOOK FOR MEDICAL ASSISTANTS, Second Edition, by *M. Murray Lawton,* M.D., and *Donald F. Foy,* M.S., M.P.H. St. Louis, C. V. Mosby Company, 1971, $9.85.

MODERN TREATMENT, Vol. 7, No. 6, MANAGEMENT OF ESOPHAGEAL DISEASE, ed. by *T. M. Bayless,* M.D. New York, Harper & Row, 1970, $20.00 per year.

HANDBOOK OF PSYCHIATRY, Second Edition, by *Philip Solomon,* M.D., and *Vernon D. Patch,* M.D. Los Altos, California, Lange Medical Publications, 1971, $7.50.

SYMPOSIUM ON THE FUNCTIONAL PHYSIOPATHOLOGY OF THE FETUS AND NEONATE, ed. by *Harold Abramson,* M.D. St. Louis, C. V. Mosby Company, 1971, $15.00.

REVIEW OF MEDICAL PHYSIOLOGY by *William F. Ganong,* M.D. Los Altos, California, Lange Medical Publications, 1971, $8.50.

THE HUMAN HEART, Second Edition, ed. by *Brendan Phibbs,* M.D., F.A.C.P., F.A.C.C. St. Louis, C. V. Mosby Company, 1971, $5.75.

REVIEW OF PHYSIOLOGICAL CHEMISTRY by *Harold A. Harper,* Ph.D. Los Altos, California, Lange Medical Publications, 1971, $8.00.

GENERAL OPHTHALMOLOGY by *Daniel Vaughan,* M.D., *Taylor Asbury,* M.D., and *Robert Cook,* M.D. Los Altos, California, Lange Medical Publications, 1971, $8.00.

EYE SYMPTOMS IN BRAIN TUMORS, Second Edition, ed. by *Frederick C. Blodi,* M.D. St. Louis, C. V. Mosby Company, 1971, $32.50.

BARRINGTON by *John Rowan Wilson,* M.D. New York, Doubleday & Company, Inc., 1971, $6.95.

CODE FIVE by *Frank G. Slaughter,* M.D. New York, Doubleday & Company, Inc., 1971, $5.95.

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GROWTH CONTROL IN CELL CULTURES, Ciba Foundation Symposium, ed. by *G. E. W. Wolstenholme* and *Julie Knight.* London, Churchill Livingstone, 1971.

DOCTOR AND PATIENT AND THE LAW, Fifth Edition, ed. by *R. Crawford Morris,* LL.B., and *Alan R. Moritz,* A.M., Sc.D., M.D. St. Louis, C. V. Mosby Company, 1971, $24.50.

REHABILITATION MEDICINE, Third Edition, ed. by *Howard A. Rusk,* M.D. St. Louis, C. V. Mosby Company, 1971, $21.00.

ELLISON'S ATLAS OF SURGERY OF THE STOMACH AND DUODENUM, ed. by *Larry C. Carey,* M.D., and *Robert H. Albertin,* M.A. St. Louis, C. V. Mosby Company, 1971, $24.50.

SYNOPSIS OF OPHTHALMOLOGY, Third Edition, ed. by *William H. Havener,* B.A., M.D., M.S. (Ophth.). St. Louis, C. V. Mosby Company, 1971, $12.75.

SHANDS' HANDBOOK OF ORTHOPAEDIC SURGERY, Eighth Edition, ed by *R. Beverly Raney, Sr.,* M.D., and *H. Robert Brashear, Jr.,* M.D. St. Louis, C. V. Mosby Company, 1971, $15.50.

THE CARE OF THE GERIATRIC PATIENT, Fourth Edition, ed. by *E. V. Cowdry,* Ph.D., Sc.D. (Hon.), and *Franz U. Steinberg,* M.D. St. Louis, C. V. Mosby Company, 1971, $21.00.

HANDBOOK OF POISONING: DIAGNOSIS AND TREATMENT, Seventh Edition, ed. by *Robert H. Dreisbach,* M.D., Ph.D. Los Altos, California, Lange Medical Publications, 1971, $6.00.

PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON NOSOCOMIAL INFECTIONS. Chicago, American Hospital Association, 1971, $1.50.

LUMBAR DISC DISEASE, ed. by *Blaine S. Nashold, Jr.,* M.D., and *Zdenek Hrubec,* Sc.D. St. Louis, C. V. Mosby Company, 1971, $16.50.

RADIATION PROTECTION STANDARDS by *Lauriston S. Taylor,* Cleveland, CRC Press, 1971, $11.50.

HANDBOOK OF OBSTETRICS & GYNECOLOGY, Fourth Edition, by *Ralph C. Benson,* M.D. (Los Altos, California, Lange Medical Publications, 1971, $6.50).

MODERN TREATMENT, Vol. 7, No. 5, ETIOLOGY, DIAGNOSIS AND TREATMENT OF MULTIPLE SCLEROSIS, ed. by *Gerard M. Lehrer,* M.D., and MALE GENITAL INFECTIONS, ed. by *Russell W. Lavengood, Jr.,* M.D., and *John W. Draper,* M.D. (New York, Harper & Row, 1970, $20.00 per year).

ELECTRODIAGNOSIS AND ELECTROMYOGRAPHY, ed by *Sidney Licht,* M.D. (New Haven, Connecticut, Elizabeth Licht, Publisher, 1971, $14.00).

THE HAND by *Lee Milford,* M.D. (St. Louis, C. V. Mosby Company, 1971, $19.50).

SPEECH PATHOLOGY by *William H. Perkins,* Ph.D. (St. Louis, C. V. Mosby Company, 1971, $11.75).

OBSTETRICS AND GYNECOLOGY, Fourth Edition, by *J. Robert Willson,* M.D., *Clayton T. Beecham,* M.D., and *Elsie Reid Carrington,* M.D. (St. Louis, C. V. Mosby Company, 1971, $19.80).

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ENERGY METABOLISM IN TRAUMA, Ciba Foundation Symposium, ed. by *Ruth Porter* and *Julie Knight.* (London, J. & A. Churchill, 1970).

TEAMWORK FOR WORLD HEALTH, Ciba Foundation Symposium, ed. by *Gordon Wolstenholme* and *Maeve O'Connor.* (London, J. & A. Churchill, 1971).

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Woman's Auxiliary News

SOME HEALTH PROBLEMS CANNOT BE SOLVED BY THE DOCTOR—ALONE!

Health care in America is under attack. Mrs. Robert F. Beckley, national president-elect, urges Auxiliary members, as doctors' wives, to focus on promoting the best possible health care for all people.

For many years health affairs were a private matter between physician and patient. Today, the words *Health Care Crisis* are being used to stir people up to the point of demanding quick, radical reorganization of the medical care delivery system. "Solutions" offered by critics are costly.

The nation's real problems of medical care can best be met through measures that hit at particular trouble areas. Poverty, bad housing and unemployment are basic factors in many diseases but these problems cannot be solved by doctors.

Drug abuse, alcoholism and excessive cigarette smoking lead to severe diseases, but they are part of our culture. Dissatisfaction with life, fears, mental deficiencies, worries, inheritance of genetic defects, automobile accidents, over-eating, too little exercise all serve to underscore the need to decide now what doctors CAN DO and what they CANNOT be expected to do for their patients!

There is much that is good about the American health system, and these elements must be improved and retained. Medical men and the medical family may well be playing two roles (and those who are fit to do so SHOULD do so)—one, the role of the professional and two, the role of citizen. In the latter role we certainly must try to solve major problems in society which cause ill health. These two tasks and two roles should not be confused with each other.

Our Auxiliary programs and projects should demonstrate our desire to help people as well as show our concern with the problems of our time.

You can help by talking and working so that people know and understand the real level of concern, value and contribution which the doctor makes to the community.

HAVE YOU A CANDIDATE FOR VOLUNTEER HEALTH SERVICE AWARD?

Mrs. Stanley Vegors, Community Services Chairman, advises that March 31 is the deadline for counties and members-at-large to submit candidates for the 1972 service award.

Your entry should not be a member of a doctor's family, a nurse or anyone whose employment includes the particular service for which she is to be recognized.

The State Medical Advisory Committee functions as a judge for the Volunteer Health Service Award which will be presented at the state convention April 23-25.

A summary of your candidate's health activities should also be sent to your local newspaper, and in this way many fine women are recognized at the local level.

WHO NEEDS A PROGRAM?!!

The Package Programs have a NEW look! They are being re-edited, updated and simplified.

Developed by the Auxiliary to focus public attention on current health needs, the Package Programs are for use in planning and implementing programs related to specific needs as a part of a community health plan.

Select from the available Package Programs the one that best suits your community's health needs. Then make the widest possible use of it. They are available on: Alcohol, Block Mother Plan, Drug Abuse, Health Manpower, Immunization, Sex Education, Smoking, Teenage Venereal Disease and Physical Fitness.

New programs are being developed on Mental Health for Children and Homemaker Services.

Kits are available to cover Blood Donating and GEMS (Good Emergency Mother Substitutes).

Check with your medical society and public health leaders to ascertain the worth of a given program in your community. Then order from: Woman's Auxiliary, 535 N. Dearborn St., Chicago, Ill. 60610.

V.D. IS NO JOKE— YOU COULD DIE LAUGHING

As a matter of fact, this year about 2,000,000 will miss the joke. Blindness, heart failure, psychosis and paralysis are just a few of its effects. That's about how many new cases of venereal disease public health officials estimate will be identified in this country. And these people will be luckier than others. Too often, initial symptoms go unnoticed, allowing the disease to go undetected for years while it destroys vital tissues and organs and is passed along to others.

Kent Forbes, communicable disease control officer of the Des Moines Polk County Health Department, said the venereal disease problem is increasing rapidly and is really widespread if young 7 and 10 year olds are infected by direct sexual contacts.

Forbes said he expects the number of venereal disease cases treated—both gonorrhea and syphilis —to double in 1971 over 1970. The biggest increase is among 18 and 20 year olds. One reason given is the unemployment this year, allowing this group more time on their hands.

The use of birth control pills by young women also is a contributing factor to the rising VD rate. "Girls are becoming less apprehensive about participating in sexual relations because they no longer have the fear of pregnancy," Forbes said. "Also, some of the younger girls think the birth control pill also protects them against venereal disease," which is not true.

He said that males are not using prophylactics because, with many young women on birth control pills, they no longer worry about making the females pregnant. Forbes said prophylactics are considered some protection against venereal disease.

Most of the VD is gonorrhea, which is relatively easy to detect and treat in the male, but is difficult to detect in females. Forbes said, however, that the number of cases of syphilis, a more serious disease, has nearly doubled so far this year over the total for all of 1970.

URGES FAMILY SEX EDUCATION

Dr. Garfield Tourney, professor of psychiatry at The University of Iowa College of Medicine, has declared that sex education programs must educate the parents as well as the child.

Speaking at a recent conference entitled "The Community Fights Back," which dealt with family-life problems, Dr. Tourney said most people tend to think of sex education as a formal program.

"But sex education begins at a very early stage in life," he said. "Attitudes are formed in subtle ways long before formal education begins. Thus, we have the problem of educating the parent along with the child."

Kenneth Barringer, instructor of family-life education at The University of Iowa, said that "sex education programs must be well understood by the professionals involved and fully interpreted to the parents. If the parents know the approach and materials to be used by the teacher, there won't be nearly as many problems."

To Inform Others—BE INFORMED!

"The best way to correctly inform our friends and neighbors about the current medical political issues is to be informed ourselves," said Mrs. J. F. Veverka upon her return from the North Central Regional Workshop. Erlene substituted for Mrs. J. L. Beattie, State Legislative Chairman. Mrs. Beattie was unable to attend the Fall Workshop in Minneapolis.

"Doctors' wives can become informed about legislation by reading regularly such publications as THE AMA NEWS, DIRECT LINE, AMA UPDATE, POLITICAL STETHOSCOPE and M.D.'S WIFE," suggested Mrs. Veverka.

"Share what you learn with your husband and educate your children as you read. The place to begin informing is at home! And the time to get the 18-year-old vote is during those years before the child reaches voting age."

According to Mrs. Veverka, the main discussion at Workshop concerned health care legislation sponsored by the health insurance carriers, the AMA and the administration. The AMA booklet entitled "Medical and Health Care for All" helps explain the Medicredit proposal.

WOMAN'S AUXILIARY TO THE IOWA MEDICAL SOCIETY

President—Mrs. P. H. Tenney, 203 Second Avenue, SW, Independence 50644

President-Elect—Mrs. R. L. Wicks, 523 South Clinton Street, Boone 50036

Recording Secretary—Mrs. G. B. Bristow, 117 South Park Street, Osceola 50213

Treasurer—Mrs. J. F. Veverka, Box 324, Prairie City 50228

Editor of THE NEWS—Mrs. J. L. Kehoe, 111 McClellan Blvd., Davenport 52803

About IOWA Physicians

Dr. Vera French, of Bettendorf, was recently honored by the Community Mental Health Centers Association of Iowa and the Iowa Mental Health Authority for her "unique and sustaining contribution to the community mental health center movement in Iowa." Dr. French is director of the Community Mental Health Center of Scott County, the first in Iowa to receive both a comprehensive staffing grant and a construction grant from the federal government. She is a member of the Standards and Ethics Committee of the Iowa Community Mental Health Center Association and a representative of the association to the National Council of Community Mental Health Centers.

Dr. Harold Moessner, of Amana, was a guest speaker at the 19th annual pharmacy seminar in Iowa City sponsored by The U. of I. College of Pharmacy. His talk was entitled, "Rural Health Centers." Dr. Moessner is a U. of I. clinical assistant professor of family practice and immediate past president of the Iowa Academy of Family Practice.

Dr. T. W. Davis, of Corydon, participated recently in the first of a three-session series in Corydon on diabetes. The classes are designed for diabetics and their families.

Dr. Wendell K. Downing, of Des Moines, participated in a panel discussion on colon disease at the annual meeting of the American College of Surgeons in Atlantic City, N. J.

At the November meeting of the Dallas-Guthrie County Medical Society **Dr. Enfred Linder,** of Ogden, IMS Fifth District Councilor, and IMS staff members, **Merle Libby** and **Eldon Huston,** discussed the Iowa Foundation for Medical Care. The Society elected the following officers for 1972—**Dr. Herbert Neff,** of Guthrie Center, president; **Dr. William Castles,** of Dallas Center, vice president; and **Dr. Keith M. Chapler,** of Dexter, secretary-treasurer. Delegates elected to the 1972 IMS House of Delegates are as follows—**Dr. Eugene Lister,** of Dallas Center, Dallas County delegate, and **Dr. Perry Weigel,** of Van Meter, alternate; **Dr. William Seidler,** of Jamaica, Guthrie County delegate, and **Dr. Norman Krueger,** of Casey, alternate.

The following Fort Dodge physicians have been elected to Webster County Medical Society offices —**Dr. Marion B. Allen,** president; **Dr. Charles H. Coughlan,** president-elect; **Dr. M. E. Kraushaar,** vice president; **Dr. Jesse J. Landhuis,** secretary-treasurer; **Dr. Frank S. Larsen,** member-at-large of the board of trustees; **Drs. Eric M. Swanson** and **John F. Kelly,** delegates to 1972 IMS House of Delegates, and **Drs. Gary L. LeValley** and **Herbert H. Kersten,** alternate delegates.

Dr. Richard M. Caplan, an assistant dean at The U. of I. College of Medicine, and professor of dermatology, participated in recent meetings of the National Program for Dermatology and the American Academy of Dermatology. A slide-sound presentation on "Skin Lesions Depicted and Defined," for medical student education, developed by Dr. Caplan and two New York University dermatologists, was shown at the meetings. At the American Academy of Dermatology meeting, Dr. Caplan also directed a discussion group on "Educating Your Patient," and served as a member of the committee evaluating the educational effectiveness of the national meeting.

Dr. Wallace H. Longworth, a Boone general practitioner for 40 years until his retirement in 1969, recently completed a book entitled, "History of Medicine in Boone County." The 80-page limited edition volume will be distributed to each doctor in Boone County, the Boone County Hospital, the State Medical Library, Iowa Medical Society and Iowa State University. A 1927 graduate of The U. of I. College of Medicine, Dr. Longworth was requested by the Boone County Medical Society to write a medical history of the county. He devoted two years to accumulating the historical information. Mrs. Longworth assisted in the research, editing and typing.

Dr. Arthur Blome, an Ottumwa obstetrician and gynecologist since 1943, has retired from the private practice of medicine. During his 28-year medical career in Ottumwa, Dr. Blome delivered an estimated 9,000 babies. A 1930 graduate of The U. of I. College of Medicine, Dr. Blome served his internship at San Diego County Hospital in California and his residency in obstetrics and gynecology at the U. of I. He is a past president of the Wapello County Medical Society and was on the medical staff at both St. Joseph and Ottumwa Hospitals.

Dr. A. Dudley Dennison, Jr., formerly of Des Moines and now of Lake Panorama, has been granted consulting staff privileges at the Greene County Medical Center. Dr. Dennison recently retired from his position as chief of cardiology at the Veterans Hospital in Des Moines. He plans to work at the medical center a portion of his time and continue his work as a public speaker.

Dr. Carl V. Griesy has terminated his practice in Rock Rapids and has joined a group of physicians in Two Harbors, Michigan. Dr. Griesy practiced medicine in Rock Rapids for 11 years.

Dr. Sixto F. Guiang, of Burlington, has been named assistant professor of pediatrics at the newly re-opened Rush Medical College in Chicago. Dr. Guiang will also serve as a supervising allergist at Rush Presbyterian-St. Luke Medical Center. He will commute to Chicago and continue to live and practice in Burlington. Dr. Guiang is a diplomate of the American Board of Pediatrics and the American Sub-Specialty Board of Pediatric Allergy. He is also a fellow of the American Academy of Pediatrics, the American College of Allergists, and the American College of Allergy.

Dr. Rubin H. Flocks, professor and head of The U. of I. Department of Urology, was invited to the White House by **President Richard M. Nixon** for the signing of the National Cancer Act of 1971. Dr. Flocks, an internationally recognized authority on cancer of the prostate, served from 1965 to 1969 as a member of the National Advisory Cancer Council. He has also been president of three of the top national professional groups in the field of urology.

Dr. R. E. Griffin, of Sheldon, was guest speaker at a recent meeting of the American Home Department of the Sheldon Woman's Club. Dr. Griffin's topic was "A Century of Medicine."

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Caution: Federal law prohibits dispensing without prescription.

Indications
Pre-Sate (chlorphentermine hydrochloride) is indicated in exogenous obesity, as a short term (i.e. several weeks) adjunct in a regimen of weight reduction based upon caloric restriction.

Contraindications
Glaucoma, hyperthyroidism, pheochromocytoma, hypersensitivity to sympathomimetic amines, and agitated states. Pre-Sate (chlorphentermine hydrochloride) is also contraindicated in patients with a history of drug abuse or symptomatic cardiovascular disease of the following types: advanced arteriosclerosis, severe coronary artery disease, moderate to severe hypertension, or cardiac conduction abnormalities with danger of arrhythmias. The drug is also contraindicated during or within 14 days following administration of monamine oxidase inhibitors, since hypertensive crises may result.

Warnings
When weight loss is unsatisfactory the recommended dosage should not be increased in an attempt to obtain increased anorexigenic effect; discontinue the drug. Tolerance to the anorectic effect may develop. Drowsiness or stimulation may occur and may impair ability to engage in potentially hazardous activities such as operating machinery, driving a motor vehicle, or performing tasks requiring precision work or critical judgment. Therefore, such patients should be cautioned accordingly. Caution must be exercised if Pre-Sate (chlorphentermine hydrochloride) is used concomitantly with other central nervous system stimulants. There have been reports of pulmonary hypertension in patients who received related drugs.

Drug Dependence Drugs of this type have a potential for abuse. Patients have been known to increase the intake of drugs of this type to many times the dosages recommended. In long-term controlled studies with the high dosages of Pre-Sate, abrupt cessation did not result in symptoms of withdrawal.

Usage In Pregnancy The safety of Pre-Sate (chlorphentermine hydrochloride) in human pregnancy has not yet been clearly established. The use of anorectic agents by women who are or who may become pregnant, and especially those in the first trimester of pregnancy, requires that the potential benefit be weighed against the possible hazard to mother and child. Use of the drug during lactation is not recommended. Mammalian reproductive and teratogenic studies with high multiples of the human dose have been negative.

Usage In Children Not recommended for use in children under 12 years of age.

Precautions
In patients with diabetes mellitus there may be alteration of insulin requirements due to dietary restrictions and weight loss. Pre-Sate (chlorphentermine hydrochloride) should be used with caution when obesity complicates the management of patients with mild to moderate cardiovascular disease or diabetes mellitus, and only when dietary restriction alone has been unsuccessful in achieving desired weight reduction. In prescribing this drug for obese patients in whom it is undesirable to introduce CNS stimulation or pressor effect, the physician should be alert to the individual who may be overly sensitive to this drug. Psychologic disturbances have been reported in patients who concomitantly receive an anorectic agent and a restrictive dietary regimen.

Adverse Reactions
Central Nervous System: When CNS side effects occur, they are most often manifested as drowsiness or sedation or overstimulation and restlessness. Insomnia, dizziness, headache, euphoria, dysphoria, and tremor may also occur. Psychotic episodes, although rare, have been noted even at recommended doses. **Cardiovascular:** tachycardia, palpitation, elevation of blood pressure. **Gastrointestinal:** nausea and vomiting, diarrhea, unpleasant taste, constipation. **Endocrine:** changes in libido, impotence. **Autonomic:** dryness of mouth, sweating, mydriasis. **Allergic:** urticaria. **Genitourinary:** diuresis and, rarely, difficulty in initiating micturition. **Others:** Paresthesias, sural spasms.

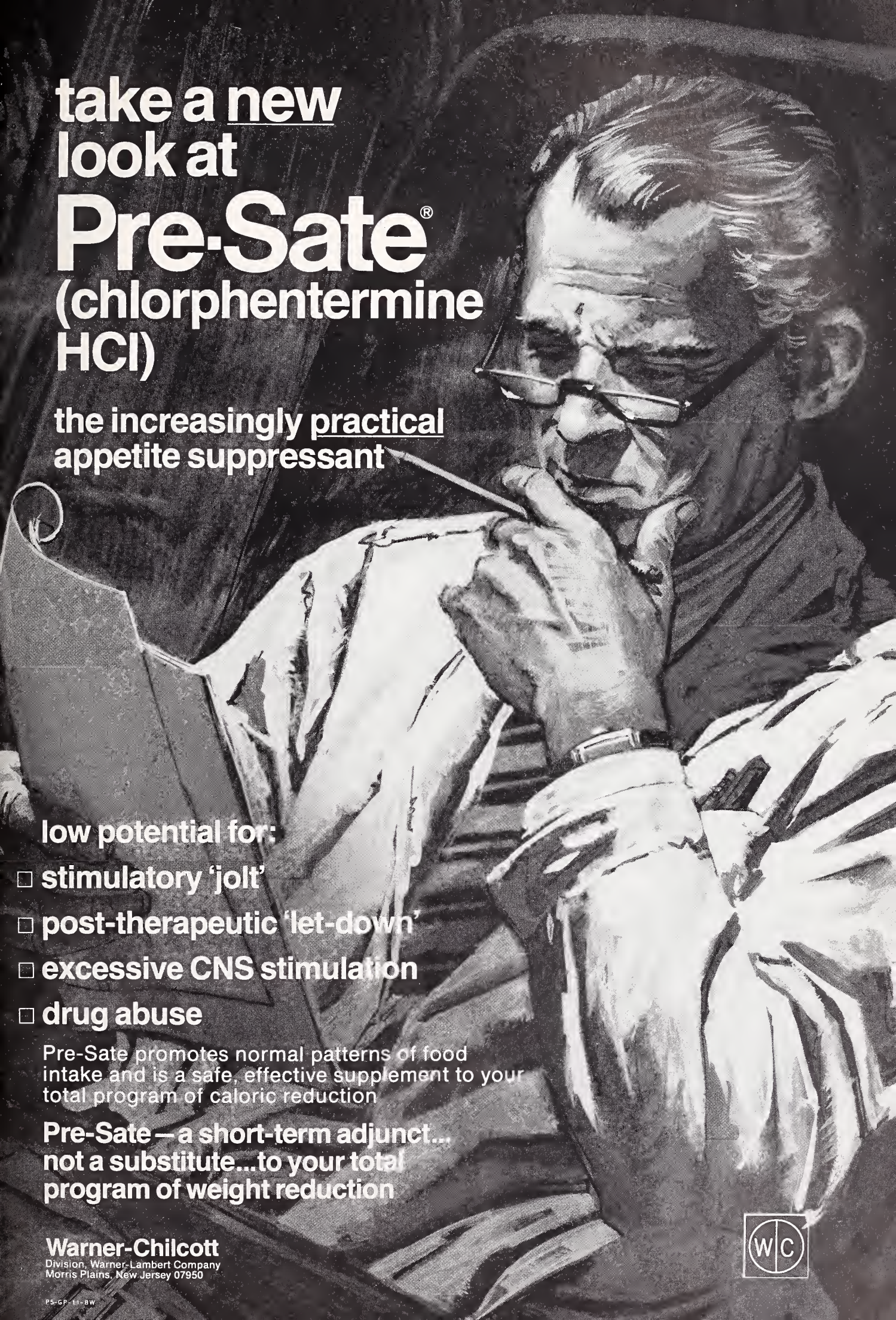
Dosage and Administration
The recommended adult daily dose of Pre-Sate (chlorphentermine hydrochloride) is one tablet (equivalent to 65 mg chlorphentermine base) taken after the first meal of the day. Use in children under 12 not recommended.

Overdosage
Manifestations: Restlessness, confusion, assaultiveness, hallucinations, panic states, and hyperpyrexia may be manifestations of acute intoxication with anorectic agents. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension, or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Fatal poisoning usually terminates in convulsions and coma.

Management: Management of acute intoxication with sympathomimetic amines is largely symptomatic and supportive and often includes sedation with a barbiturate. If hypertension is marked, the use of a nitrate or rapidly acting alpha-receptor blocking agent should be considered. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendations in this regard.

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Dr. Roy M. Turner, of Armstrong, is the new president of the medical staff of Holy Family Hospital in Estherville. **Dr. Richard P. Bose,** of Estherville, is the new vice president and **Dr. Donald E. Wolters,** also of Estherville, is secretary-treasurer. **Dr. Kurt J. Schulz,** of Fairmont, and **Dr. William H. Myerly,** of Spirit Lake, have been appointed to the courtesy and consulting staff.

At a recent dinner in his honor, **Dr. A. J. Wentzien,** of Tama, who retired from active practice in July, 1971, was presented a key to the city and new fishing tackle by the Tama Chamber of Commerce. Dr. Wentzien practiced in Tama for 39 years and for the past 31 years has been associated with **Dr. A. J. Havlik** at the Tama Clinic. **Dr. Donovan Ward,** of Dubuque, a long time friend and fellow student at The U. of I. College of Medicine, spoke at the recognition program for Dr. Wentzien.

Dr. H. A. Van Hofwegen was recently elected president of the Skiff Memorial Hospital medical staff in Newton. **Dr. R. F. Frech** was named vice president and **Dr. Frank E. Forsythe,** secretary-treasurer.

Dr. F. J. Neglia, of Maxwell, attended a recent meeting in New Orleans of the Interstate Postgraduate Medical Association of North America.

The following Des Moines physicians have been chosen to head the medical staff at Iowa Lutheran Hospital—**Dr. Alexander Matthews,** president; **Dr. Ralph H. Riegelman,** president-elect; **Dr. Glenn B. Purnell,** secretary; and **Dr. Donald D. Schmitt,** treasurer.

Dr. R. L. Langley has been appointed assistant director of the Siouxland Mental Health Center. A native of Sioux City, Dr. Langley was in general practice in Morningside until 1966 when he entered military service. Following his tour of duty, Dr. Langley returned to the University of Nebraska College of Medicine where he completed his residency in psychiatry and neurology.

At the recent golden anniversary celebration of Henry County Memorial Hospital, a replica of a doctor's office and a patient's room as they looked 50 years ago was prepared by **Dr. Glenn Widmer,** of Wayland. **Dr. R. B. Widmer,** of Winfield, assisted his brother in assembling some of the equipment.

The following Mason City physicians have been named officers of the Mercy Hospital medical staff—**Dr. John Baker,** president; **Dr. Benjamin Broghammer,** vice president; **Dr. Samuel Porter,** secretary-treasurer, and **Dr. Jerome Paulson,** member-at-large.

Dr. R. E. Munns, of Hampton, presented a program on hypertension at a recent meeting of the Franklin County Unit of the Iowa Heart Association. **Dr. Dale Harding,** of Eagle Grove, president of the North Central Division of Iowa Heart Association, presided at the meeting and discussed the activities of the North Central Stroke Program.

Dr. John F. Troxel, of Cedar Rapids, has been elected president of the medical staff of St. Luke's Methodist Hospital. Other officers are: **Dr. Campbell F. Watts,** Cedar Rapids, president-elect; **Dr. John P. Barthel,** Cedar Rapids, vice president; and **Dr. Paul E. Orcutt,** Marion, secretary-treasurer. Chiefs of staff at St. Luke's in 1972 will be: **Dr. John D. Schuchman,** anesthesia; **Dr. William R. Basler,** general practice; **Dr. Fred E. Abbo,** medicine; **Dr. Dean H. Bemus,** obstetrics and gynecology; **Dr. John W. Robb,** orthopedics; **Dr. Kingsley Grant,** pathology; **Dr. Francis E. Flannery,** pediatrics; **Dr. William J. Moershel,** psychiatry; **Dr. John Huston,** radiology, and **Dr. John F. Kanealy,** surgery. All are Cedar Rapids physicians.

Dr. John W. Saar, of Keokuk, has been named director of the 24-hour drug crisis center established in Keokuk by the Drug Abuse Committee of Action, Inc. **Dr. William H. Harper, Jr.,** also of Keokuk, will assist Dr. Saar.

The following Iowa physicians were guest faculty members at a recent U. of I. Conference on the current status of maternity care in Iowa: **Dr. Elizabeth Procter,** of Des Moines; **Dr. John Foss,** of Burlington; **Dr. David Wetrich,** of Ottumwa; and **Dr. David Wall,** of Ames.

Dr. R. M. Quetsch, of Cedar Rapids, has been elected president of the medical staff of Mercy Hospital. He succeeds **Dr. Carl R. Aschoff. Dr. Donald F. Bomkamp** was named president-elect; **Dr. William Basler,** vice president; and **Dr. E. Y. Bickel,** secretary-treasurer. Chiefs of departments elected by the staff are: **Dr. Robert Meyer,** anesthesiology; **Dr. Joseph Galles,** general practice; **Dr. Thomas McIntosh,** medicine; **Dr. J. E. Walker,** obstetrics and gynecology; **Dr. R. M.**

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OBITUSSIN-PE®				●	●
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Wray, orthopedics; **Dr. F. M. Skopec,** pathology; **Dr. James Reinertson,** pediatrics; **Dr. H. R. Hirleman,** radiology; and **Dr. E. L. Grandon,** surgery.

Dr. Igancio Ponsetti, professor of orthopedic surgery at The U. of I. College of Medicine, and **Dr. Thornton Bryan,** associate professor in the department of family practice, were guest speakers at a recent medical day program sponsored by the Webster County Medical Society. Dr. Ponsetti spoke on congenital dislocated hips and Dr. Bryan discussed problem oriented practice in contrast to chronological orientation.

The following Sioux City physicians have been elected to head the St. Joseph Mercy Hospital medical staff—**Dr. Thomas Ware,** president; **Dr. Gerald J. McGowan,** president-elect; and **Dr. Daniel M. Youngblade,** secretary-treasurer.

Dr. Michael Croxdale has joined the Gilfillan Clinic in Bloomfield on a part-time basis in the new Department of Dermatology. Dr. Croxdale is completing his residency in dermatology at The U. of I. College of Medicine and will join the Clinic on a full-time basis after the completion of his residency this July. A 1966 graduate of The U. of I. College of Medicine, Dr. Croxdale interned at Broadlawns Hospital in Des Moines. Following completion of his internship, he served in Viet Nam where he was decorated twice.

Dr. Francis C. Coleman, formerly of Des Moines and now residing in Tampa, Florida, has been named by **President Richard M. Nixon** to the Committee on the Health Services Industry. Dr. Coleman is an alternate AMA delegate from Florida, vice chairman of the AMA Council on Health Manpower and former chairman of the AMA Council on Legislation. He is also a past president of the College of American Pathologists and present chairman of the CAP National Legislative Committee.

Newly elected officers of the Mahaska County Medical Society are as follows—**Dr. George S. Atkinson,** president; **Dr. N. L. Saxton,** vice president; **Dr. Charles Argo,** secretary; **Dr. Keith Campbell,** treasurer; **Dr. Sidney Smith,** delegate, and **Dr. James L. Allen,** alternate delegate—all Oskaloosa physicians.

Dr. W. H. Verduyn, of Reinbeck, has been appointed Grundy County medical examiner, and **Dr. J. E. Rose,** of Grundy Center, and **Dr. Glendon Button,** of Conrad, deputy examiners.

Dr. Milton Barrent and **Dr. G. W. Marme,** both Clinton physicians, will serve as president and vice president, respectively, of the Mercy Hospital Medical staff in 1972.

Dr. Warren Stupek, formerly of Fennimore, Wisconsin, has been appointed to the Radiology Department at People's Memorial Hospital in Independence. Dr. Stupek received the M.D. degree at the National University of Ireland at Galway, interned at Denver, Colorado, and served his residency at Tampa, Florida, General Hospital. Prior to locating in Iowa, Dr. Stupek was a resident in diagnostic radiology at the University of Wisconsin. In September, Dr. Stupek succeeded **Dr. Nelson Hersey,** longtime northeast Iowa radiologist, at the Oelwein, Manchester and Sumner hospitals.

The following Iowa physicians were recently admitted as members of the American College of Physicians—**Dr. Robert A. Sedlacek,** Cedar Rapids; **Dr. Robert C. Smith,** Des Moines; **Dr. John H. Brinkman,** Mason City, and **Dr. Paul W. Scott,** Ottumwa.

DEATHS

Dr. George Krepelka, 77, formerly of Osage, died November 23 in Methodist Hospital at Rochester, Minnesota. A 1918 graduate of The U. of I. College of Medicine, Dr. Krepelka began his practice of medicine in Stacyville in 1919 where he remained until 1937 when he moved to Osage. Dr. Krepelka was a veteran of World War I, a charter member of the American Legion Post 278, a member of the Masonic Lodge and Shrine.

Dr. R. N. Conmey, 88, a Sergeant Bluff physician for 60 years, died November 12 at Los Angeles, California. Dr. Conmey received the M.D. degree at The U. of I. College of Medicine in 1905 and practiced medicine in Sergeant Bluff until 1966 when he retired to Tujunga, California. He was a professor at the old Sioux City College of Medicine, a member of the Iowa Medical Society and American Medical Association.

Dr. Edward L. Croxdale, 59, of Villisca, died December 12 at Rosary Hospital in Corning. A 1940 graduate of The U. of I. College of Medicine, Dr. Croxdale served his internship at Denver General Hospital. Following military service, he established his office in Villisca in 1946. Dr. Croxdale was a member of the American Academy of General Practice, Iowa Medical Society and American Medical Association.

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Dr. Paul J. Amlie, 63, of Blairstown, died December 8 at St. Mary's Hospital in Rochester, Minnesota. Dr. Amlie received the M.D. degree at The U. of I. College of Medicine and had practiced medicine in Blairstown since 1955. He was a member of the Iowa Medical Society and American Medical Association.

Dr. M. L. Deakins, 65, of Logan, died December 16. Dr. Deakins received the M.D. degree at the University of Rochester in New York and interned at Rochester Medical Center. He had practiced medicine in Logan since 1953. Dr. Deakins was the recipient of five earned degrees: Doctor of Medicine, Doctor of Dental Surgery, Doctor of Philosophy, Master of Science and Bachelor of Science.

Dr. Robert G. Mellen, 78, of Clinton, died at Mercy Hospital December 17. A 1918 graduate of The U. of I. College of Medicine, Dr. Mellen practiced for 51 years in Clinton. He was a life member of the Iowa Medical Society and American Medical Association.

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ADDITIONAL PHYSICIANS NEEDED in Iowa community of 15,000. A general practitioner, internist, pediatrician, oto-rhinolaryngologist, obstetrician and gynecologist could fit into the community practice setting by making his home here. Contact Robert R. Kemp, M.D., 206 North 7th Street, Keokuk, Iowa 52632.

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Doctor's Business

by LARRY E. LEAVERTON

BECOME MORE PRODUCTIVE?

We have heard physicians comment about the apparent discriminatory aspects of the wage-price freeze which applies to most all businesses and professions. Salaries, which are a major expense of operating an office, may be increased 5.5% but fees, which make up gross income, may go up only 2.5% under most conditions. In the past, medical fees like the costs of other goods and services have generally increased along with operating costs.

One way to look at this situation, and this is one of the principal ideas for curbing inflation, is to become more productive. To maintain the same or slightly increased net profit with basically the same fees, it is necessary to increase production, work longer, harder, or more efficiently, cut some operating expenses, or a combination of some or all of these factors.

Here are some key areas for possible improvement which should be examined:

How do you rate as an administrator? Can your technique be improved? Can your office be more efficient? Are you effective in managing and organizing your time?

Observe better practice management methods. What is practice management? A good definition of management that is commonly used is "getting things done through people." To accomplish this a physician must be a good supervisor in his relationships with his employees, he should use consultants—medical, legal, and business—when necessary. How are your lines of communications with your employees and your colleagues? We still hear the old cliche that physicians are poor businessmen. We even hear some doctors boasting about it. The statement has a variety of meanings —some intending to be complimentary, others not. The truth is that there are still many physicians who do not give the proper time and attention to managing their practice. It is easy for a busy physician to convince himself he is too busy to be concerned with details of practice management. However, it is often due to the neglect of these business details that he is so busy.

Examine your office routines and procedures. Do you have the latest in time and labor saving equipment? Would disposables be more convenient or result in cost savings? Are you using written instructions to patients—and standard forms where applicable? Would a history questionnaire work in your office? Is your billing system efficient? Do you have a workable and efficient appointment system? The appointment book is the key to your time management. It must be constantly reviewed for proper scheduling, allotment of time, grouping of appointments and proper emergency time. Are there any additional duties that can be delegated? Surveys by our firm have brought out the fact that there are still basic tasks that some physicians are doing themselves that could be delegated to a capable well trained medical assistant.

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Do you have the best available personnel and in adequate number to give maximum assistance? Do they know their duties and responsibilities?

Some doctors are critical of an approach keyed to increased productivity, referring to it as assembly line medicine. This is not intended nor advocated. If a doctor is giving an injection an RN could handle, handling paper work his assistants could do (perhaps better), writing lengthy histories that could be dictated, or managing aspects of his practice that could be delegated, he is using time that could be better devoted to his patients.

Mr. Leaverton is Director of Research and Development for Professional Management Midwest.

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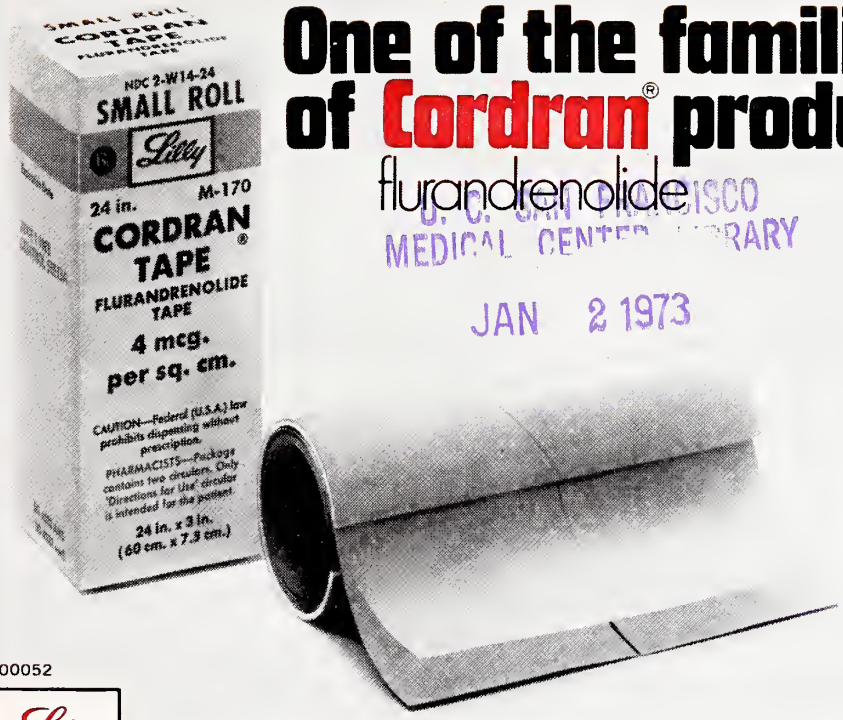
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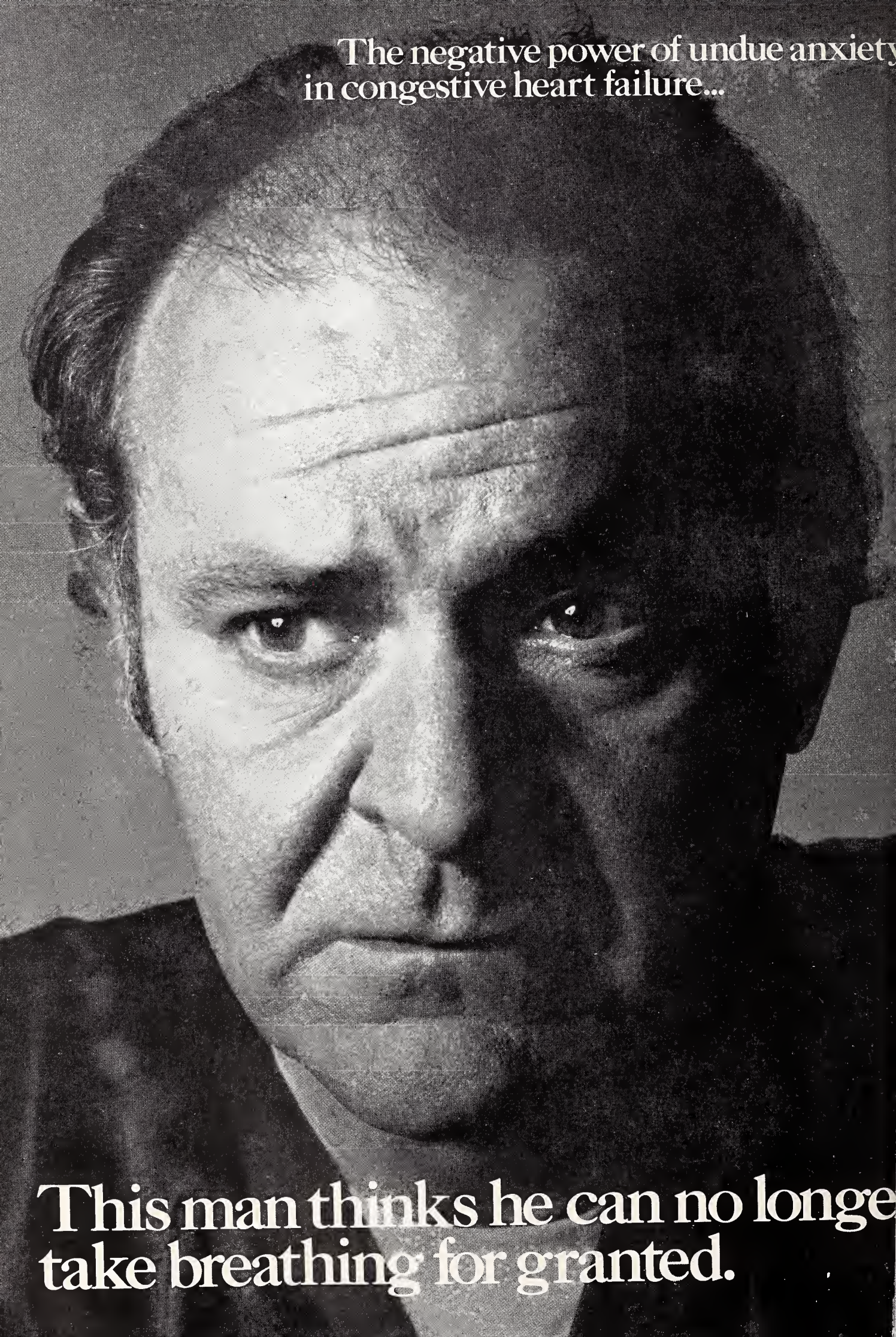
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MARCH 1972

The negative power of undue anxiety in congestive heart failure...



This man thinks he can no longe take breathing for granted.

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Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

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President's Page



Abroad in the land today is a myth that the solo practitioner and the small group are the cause of imagined or real problems in the health field. Regardless of practice situation, intelligent physicians desire to improve on the quality of medical practice, to understand the vagaries of the delivery of health care; and they are perceptive enough to know the economics of medical services.

In order to avoid being only highly trained technicians, physicians in every possible way should learn and activate the humanities aspects of practice and know the historical perspective of the millieu in which we practice. The medical and health care field has attracted many "experts" who are suggesting, devising and imposing questionable methods of financing and delivering services. It is said that management should be superimposed on medical practice.

Physicians, students and teachers should guard the professionalism of medicine so that five or 15 years from today we will not be "hired hands" with little or no voice in the determination of medical policies with a decreasing influence in cooperative efforts with allied health personnel.

Every day in our professional existence we must be aware of these possibilities. Our professional standards must be clearly enunciated and practiced. Medicine needs ongoing leadership, knowledge and integrity in helping to solve the myriad complexities of our societal profession.

L. J. O'Brien M.D.

President

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IN EMPHYSEMA



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THE JOURNAL OF THE IOWA MEDICAL SOCIETY

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IOWA Medical Miscellany

NOMINATING COMMITTEE . . . The 1972 Nominating Committee will meet at 2 p.m., Sunday, March 26, at IMS Headquarters. The Nominating Committee includes a physician representative from each of the 12 IMS councilor districts. District caucuses of 1972 IMS delegates are now being held to name the members of the Nominating Committee. The Committee in turn compiles the slate of candidates for 1972-73 offices which will be considered by the House of Delegates in April.

ANNUAL MEETING PROGRAM . . . A special colored insert in this issue of the JOURNAL highlights the program for the 1972 Annual Meeting of the Iowa Medical Society. Society members are encouraged (1) to review the program, (2) to remove it for future reference and (3) to attend all or part of the 1972 sessions. Dates of the Annual Meeting are April 23-26.

LEGISLATIVE CONCERNS . . . As this is prepared, chief discussion topics before the Iowa General Assembly are adult rights and the anticipated Supreme Court revamping of the election districts (and the determination of the 1972 election dates). In the health field, HMO legislation remains on the back burner. The IMS Executive Council meeting in late January reviewed and approved a legislative proposal—drafted by the IMS—to permit health maintenance organizations in Iowa. The bill has been provided to the Iowa Senate and House for use as desired.

RULES AND REGS . . . January approval was given by the State Board of Health to rules and regulations which cover the operation of non-hospital health care facilities in Iowa. These rules are now being considered by the Legislative Rules Committee and the Attorney General. These regulatory measures emanate from a new state law which creates seven classifications of health care facilities: adult foster home, boarding home, custodial home, basic nursing home, intermediate nursing home, skilled nursing home and extended care facility. Physicians must certify that individuals admitted to the first three do not need nursing care. Physicians must certify in the other four levels that patients need no greater care than the facility in which they are to be located can supply.

JANUARY HONOR . . . Homer Wichern, M.D., Des Moines, was named Physician of the Year in January by the Governor's Committee on Employment of the Handicapped. Presentation of the award was made by Iowa Governor Robert Ray. Dr. Wichern has served for nearly 20 years as medical consultant to the Iowa Division of Rehabilitation Education and Services, Department of Health, Education and Welfare. As a state winner, Dr. Wichern is now eligible for similar recognition by the President's Committee on Employment of the Handicapped.

CIRCULATE SIGNS . . . Early February IMS NEWS BULLETIN included with it a small sign noting the availability of a listing of professional charges for principal services. Posting of such a sign is required of physicians under the federal Phase II economic guidelines. Additional copies of the sign are available on request. The Price Commission has limited physician fee increases to no more than 2.5 per cent (except with special approval) and hospital price increases to no more than 6 per cent. Announced goal of the Commission is to halve the 12.9 per cent rate of inflation in the health services industry. Voluntary compliance with the guidelines by physicians is being sought by the Price Commission.

ON AGING . . . Two regional meetings—one April 11 in Davenport and one April 13 in Ft. Dodge—will serve to follow up and report to interested Iowans on the 1971 White House Conference on Aging. A statewide meeting is planned in Des Moines in May. E. E. Linder, M.D., Ogden, chairman, IMS Subcommittee on Aging and Chronic Illness, attended the White House Conference and will take part in the Iowa briefings.

SUBJECT OF FEATURE . . . IMS member James H. Dunlevy, M.D., Fairfield, is the subject of a fea-

(Please turn to page 142)

State Department of Health

ARNOLD M. REEVE, M.D., M.P.H., Commissioner

SMALLPOX VACCINATION REQUIREMENTS AND RECOMMENDATIONS FOR INTERNATIONAL TRAVEL

Since Advisory Memorandum No. 26, *Public Health Service Recommendation on Smallpox Vaccination,* was issued on October 1, 1971, a number of questions have been received concerning smallpox vaccination requirements for international travel. The statement of the United States smallpox vaccination requirements was as follows:

"Effective immediately a Smallpox Vaccination Certificate as a condition of entry *into* the United States shall be requested only of those persons who, within the preceding 14 days, have been in a country reporting a smallpox infected area(s). . . . Those persons not in possession of a valid Smallpox Vaccination Certificate may be issued a surveillance order and placed under surveillance by State and/or local health departments."

It should be emphasized that smallpox vaccination requirements of countries *other* than the United States *have not changed.*

The traveler must consider not only the requirements of the United States but also the requirements of *each* country on his itinerary and be immunized accordingly. The sequence in which countries are visited may determine the immunization required. Almost without exception, health authorities in all countries will require a valid smallpox vaccination certificate of all travelers who, within the 14 days preceding arrival, have been in a country reporting smallpox. Failure to possess a valid certificate may result in vaccination on arrival or quarantine or surveillance by health authorities for a period up to 14 days.

It is the recommendation of the Public Health Service that persons planning to travel to Brazil, to any country in Africa, or to any country in Southeast Asia be vaccinated against smallpox for their own protection.

LIFT IMMUNIZATION REQUIREMENTS

On January 12 the Center for Disease Control, Atlanta, Georgia, announced it neither requires nor recommends immunization against any disease for Americans traveling to Europe and the U.S.S.R. This became possible when Spain, Bulgaria and the U.S.S.R. dropped their smallpox certificate requirements for U. S. travelers. European countries have not required cholera or yellow fever certificates from U. S. travelers for some time.

Depending on the nature and extent of outbreaks or isolated cases of any communicable disease in Europe or the U.S.S.R., specific requirements or recommendations regarding immunization may be changed. Local health departments and other concerned agencies will be advised immediately.

STATE BOARD OF HEALTH

The Iowa State Board of Health is comprised of nine persons who are appointed by the Governor. It is the function of the Board to establish policies for the guidance of the Commissioner of Public Health in the discharge of his duties.

The President of the Board is E. E. Gamet, M.D., Lamoni. The other members are A. J. Soucek, D.D.S., Iowa City; P. J. Leehey, M.D., Independence; P. M. Seebohm, M.D., Iowa City; J. C. Edgerton, D.O., Manning; Mrs. Meridean Maas, R.N., Liscomb; C. D. Mullinex, P.E., Cedar Rapids; H. C. Rasdal, O.D., Spencer; and Vaughn Seaton, D.V.M., Ames.

Recommended Immunization Schedule for Iowa

The following is a compromise of the recommendations of the American Academy of Pediatrics and the Public Health Service Advisory Committee on Immunization Practices.

A. CHILDREN 0-18 YEARS OF AGE

Immunizing Biological	Best Age to Begin	Number of Doses	Boosters
DIPHTHERIA AND TETANUS TOXOIDS, PERTUSSIS VACCINE (DTP)	2 months	3 injections 2 months apart.	1 year later and at school entrance. Subsequent boosters of Diptheria-Tetanus (for Adult Use) (TD) at 10 year intervals. See below.
TETANUS AND DIPHTHERIA TOXOIDS, COMBINED (For Adult Use) (TD)	6 years and over if not previously immunized with DPT.	2 injections 4 to 6 weeks apart.	1 year later, then at 10 year intervals or if wounded. Begin 10 year interval with latest doses. No booster for wound generally needed if last dose within 1 year.
MEASLES VACCINE, LIVE VIRUS*	12 months	ATTENUATED (may or may not be accompanied by modifying gamma globulin)—1 injection or FURTHER ATTENUATED (No gamma globulin) —1 injection.	Not presently considered necessary.
RUBELLA VACCINE LIVE VIRUS*	12 months, with caution after puberty.	1 injection	Not presently considered necessary.
MUMPS VIRUS VACCINE, LIVE*	12 months	1 injection	Not presently considered necessary.
MEASLES AND RUBELLA VIRUS VACCINE, LIVE (Combination vaccine)	12 months, with caution after puberty.	1 injection	Not presently considered necessary.
MEASLES, MUMPS AND RUBELLA VIRUS VACCINE, LIVE (Combination vaccine)	12 months, with caution after puberty.	1 injection	Not presently considered necessary.
POLIOVIRUS VACCINE, LIVE ORAL (Sabin)**	2 months	TRIVALENT: Primary immunization of infants less than 1 year—3 oral doses 8 weeks apart.	1 dose of Trivalent 1 year later and again before entrance to school. No further boosters presently considered necessary.
	1 year and above	Preschool, school and adult—2 oral doses of TRIVALENT 8 weeks apart.	
SMALLPOX VACCINE	Routine non-selective smallpox vaccination of children is no longer indicated or recommended in Iowa.		

* Two or all three individual vaccines containing the same virus strains available in combined form (further attenuated measles, rubella, mumps) may be given by separate injections on the same occasion.

** Present recommendations are that polio immunization be separated by at least four weeks from other live virus vaccines.

We cannot suggest too strongly that all people keep a permanent record of the types and the dates of all immunizations which they have received.

B. ADULTS

SMALLPOX—Medical and hospital personnel, morticians and others likely to be exposed to smallpox imported in the United States should be vaccinated at 3 to 5 year intervals. Travelers to and from continents where smallpox has not been eradicated should be vaccinated. For all persons the following **CONTRAINDICATIONS** should be scrupulously observed: (1) Eczema and other

forms of dermatitis in the person to be vaccinated or in a household contact, (2) pregnancy, (3) altered immune states from disease or therapy.

TETANUS—The original series is two 0.5 cc injections, intramuscularly, at four to eight week intervals, followed by a third dose about a year after the second. To maintain protection, boosters should be given at ten-year intervals. A booster injection of 0.5 cc should be given promptly after any injury or before surgical work on old wounds. If wounding occurs within one year of booster, another booster probably is not indicated except under very exceptional circumstances. Begin new ten-year booster interval from date of any booster.

DIPHTHERIA—Use only toxoids labeled "for adult use." Tetanus-Diphtheria Toxoids, combined (for adult use) is the agent of choice, administered according to above schedule for tetanus.

TYPHOID—Routine typhoid immunization is NOT recommended in the U. S. There are no data to support typhoid vaccine use before attendance at summer camps or in flood situations. Intimate and continuous contact with a typhoid carrier or travel to areas where typhoid is endemic are indications for typhoid vaccination. The primary series is two 0.5 cc doses given subcutaneously at intervals of four or more weeks. A booster dose of 0.5 cc may be given every three years. Use of vaccine containing Para-typhoid A and B antigens is NOT recommended.

INFLUENZA—Annual immunization with contemporary antigens is recommended for persons with chronic debilitating conditions. Older persons with incipient chronic cardiovascular or bronchopulmonary conditions should be considered for annual immunization. Local priority may justify immunization of persons providing essential community service. In 1971-72 bivalent A2-B vaccine should be used. Two doses 6-8 weeks apart should be given, unless the person has had influenza vaccine since 1968-69 when a single booster will suffice.

POLIOMYELITIS—Adults need this immunization only when traveling abroad or should an epidemic occur. Follow the schedule for children.

C. SCOPE OF THESE RECOMMENDATIONS

With few exceptions, these recommendations are adequate for the entire United States. For travel out of the United States request our sheet "Immunizations for Overseas Travel."

IMMUNIZATION SCHEDULE SUMMARY

Biological											
						R M MU					
	P DTP	P DTP	P DTP							P DTP	P DTP
Age in Months	2	4	6	8	10	12	14	16	18		School Entrance

Legend: P—Polio; DTP—Diphtheria, Tetanus, Pertussis; M—Measles; MU—Mumps; R—Rubella.

Pre-Sate ®
(chlorphentermine HCl)

CAUTION: Federal law prohibits dispensing without prescription.

Indications: Pre-Sate (chlorphentermine hydrochloride) is indicated in exogenous obesity, as a short term (*i.e.*, several weeks) adjunct in a regimen of weight reduction based upon caloric restriction.

Contraindications: Glaucoma, hyperthyroidism, pheochromocytoma, hypersensitivity to sympathomimetic amines, and agitated states. Pre-Sate (chlorphentermine hydrochloride) is also contraindicated in patients with a history of drug abuse or symptomatic cardiovascular disease of the following types: advanced arteriosclerosis, severe coronary artery disease, moderate to severe hypertension, or cardiac conduction abnormalities with danger of arrhythmias. The drug is also contraindicated during or within 14 days following administration of monamine oxidase inhibitors, since hypertensive crises may result.

Warnings: When weight loss is unsatisfactory the recommended dosage should not be increased in an attempt to obtain increased anorexigenic effect; discontinue the drug. Tolerance to the anorectic effect may develop. Drowsiness or stimulation may occur and may impair ability to engage in potentially hazardous activities such as operating machinery, driving a motor vehicle, or performing tasks requiring precision work or critical judgment. Therefore, such patients should be cautioned accordingly. Caution must be exercised if Pre-Sate (chlorphentermine hydrochloride) is used concomitantly with other central nervous system stimulants. There have been reports of pulmonary hypertension in patients who received related drugs.

Drug Dependence: Drugs of this type have a potential for abuse. Patients have been known to increase the intake of drugs of this type to many times the dosages recommended. In long-term controlled studies with high dosages of Pre-Sate, abrupt cessation did not result in symptoms of withdrawal.

Usage In Pregnancy: The safety of Pre-Sate (chlorphentermine hydrochloride) in human pregnancy has not yet been clearly established. The use of anorectic agents by women who are or who may become pregnant, and especially those in the first trimester of pregnancy, requires that the potential benefit be weighed against the possible hazard to mother and child. Use of the drug during lactation is not recommended. Mammalian reproductive and teratogenic studies with high multiples of the human dose have been negative.

Usage In Children: Not recommended for use in children under 12 years of age.

Precautions: In patients with diabetes mellitus there may be alteration of insulin requirements due to dietary restrictions and weight loss. Pre-Sate (chlorphentermine hydrochloride) should be used with caution when obesity complicates the management of patients with mild to moderate cardiovascular disease or diabetes mellitus, and only when dietary restriction alone has been unsuccessful in achieving desired weight reduction. In prescribing this drug for obese patients in whom it is undesirable to introduce CNS stimulation or pressor effect, the physician should be alert to the individual who may be overly sensitive to this drug. Psychologic disturbances have been reported in patients who concomitantly receive an anorexic agent and a restrictive dietary regimen.

Adverse Reactions: Central Nervous System: When CNS side effects occur, they are most often manifested as drowsiness or sedation or overstimulation and restlessness. Insomnia, dizziness, headache, euphoria, dysphoria, and tremor may also occur. Psychotic episodes, although rare, have been noted even at recommended doses. **Cardiovascular:** tachycardia, palpitation, elevation of blood pressure. **Gastrointestinal:** nausea and vomiting, diarrhea, unpleasant taste, constipation. **Endocrine:** changes in libido, impotence. **Autonomic:** dryness of mouth, sweating, mydriasis. **Allergic:** urticaria. **Genitourinary:** diuresis and, rarely, difficulty in initiating micturition. **Others:** Paresthesias, sural spasms.

Dosage and Administration: The recommended adult daily dose of Pre-Sate (chlorphentermine hydrochloride) is one tablet (equivalent to 65 mg chlorphentermine base) taken after the first meal of the day. Use in children under 12 not recommended.

Overdosage: Manifestations: Restlessness, confusion, assaultiveness, hallucinations, panic states, and hyperpyrexia may be manifestations of acute intoxication with anorectic agents. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension, or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Fatal poisoning usually terminates in convulsions and coma.

Management: Management of acute intoxication with sympathomimetic amines is largely symptomatic and supportive and often includes sedation with a barbiturate. If hypertension is marked, the use of a nitrate or rapidly acting alpha-receptor blocking agent should be considered. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendations in this regard.

How Supplied: Each Pre-Sate (chlorphentermine hydrochloride) tablet contains the equivalent of 65 mg chlorphentermine base; bottles of 100 and 1000 tablets.

Full information available on request.

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Educationally Speaking

by RICHARD M. CAPLAN, M.D.

TAKE A FRESH LOOK AT YOUR MEDICAL BOOKS

Those books of yours—how often do you look into them? Not very often? Are they the same ones you used in medical school? Impressive-looking? Pretty, maybe? And those at your hospital library—is it the same for them?

If you're a bibliophile, then you're entitled to want those books for bibliophilic reasons. If your need is for *current information to use in solving clinical problems,* then your resources need to be fairly recent—and a fair amount of it in journal form. Every physician *must* read, but should every physician try to maintain a current personal library? That must be a matter of taste and conscience. But dare any hospital maintain an old collection with inadequate representation? In an age sharply focusing on the necessity for health care to be as good as it can possibly be (to say nothing of accreditation requirements and old-fashioned-conscience) each of Iowa's hospitals needs to take a fresh look. And who has more reason to take that look than the medical staff?

"Well, how should I know what would be good items to have?" A reasonable question, indeed. Fortunately, there are some good recommendations available. The Iowa Regional Medical Program's Health Science Library Committee has prepared a happily balanced "Core List" of books and journals, and suggested alternatives. The cost for the entire group would be about $750. The IRMP or I would be glad to provide you with a copy of the list.

A different and more extensive collection for about $1,900 was suggested by the Massachusetts Postgraduate Medical Institute. Their article (NEW ENGLAND JOURNAL OF MEDICINE 280:474, 1969) discusses the concept of a core medical library and offers well-considered suggestions. Especially if you're a member of your hospital's library or education committee, you should have a look at these sources. And if your library doesn't have that volume number 280 of N.ENG.J.MED., call the State Medical Library, toll-free, 1-800-362-2384, to receive a copy of the article.

Dr. Caplan is Assistant Dean, Continuing Education, at The University of Iowa College of Medicine.

Continuing Education Courses & Conferences

Please call or write Office of Continuing Medical Education, College of Medicine, for further information on these programs. Telephone 319-353-5763.

1972

March 1	Ophthalmology Clinical Conference
March 1-3	Nuclear Medicine Review*
March 16	Neurology Elective Material*
March 18	Workshop on Cholesterol Kits (State Hygienic Laboratory)
March 18	Wet Workshop in Basic Immuno-hematological Techniques (St. Joseph Mercy Hospital, Mason City, Iowa)
March 22	Diet Therapy U.S.A.
March 24-25	Neurological Approach to Management of Severely Handicapped (Physical Therapy)
March 29-31	Workshop for Family Practitioner Who Does Anesthesia
April 5	Ophthalmology Clinical Conference
April 6-8	In-House Conference for Practitioners
April 10-13	Intensive Coronary Care Management Course*
April 20	Clinical Day in Neurology*

Unless otherwise specified all courses and conferences are held at The U. of I. College of Medicine, Iowa City.

* Enrollment limited. Advance registration necessary.

Pathology Capsules

by DAVID A. BARRETT II, M.D., and ROGER M. OSKVIG, B.A.

CREATINE PHOSPHOKINASE (CPK) —CLINICAL USE AND SIGNIFICANCE

Determination of enzyme activities in various body fluids has now become commonplace in clinical laboratories and the application of these enzyme studies in diagnostic clinical medicine is well established. Over 100 enzyme procedures have been developed, but only a few, such as serum glutamic oxalacetic transaminase (SGOT), lactic dehydrogenase (LDH) and alkaline phosphatase, have found their way into the routine diagnostic armamentarium of the practitioner.

While all of the cells in any organ system contain a multitude of enzymes, these are generally not released into the blood unless there has been injury to the cell. When there is cellular damage, however, many enzymes are released and the type and quantity depend upon the site and extent of damage. An ideal diagnostic enzyme would be one which was organ specific, that is, found only in cells from a single organ. This would provide a diagnostic marker for injury to that specific tissue or organ. A few enzymes have been shown to be relatively organ specific, such as the relation of acid phosphatase to the prostate and ornithine carbamyl transferase to the liver. However, most of the enzymes commonly determined are found in a wide variety of cells so that interpreting the significance of elevated levels in the blood is often difficult. In such instances, the determination of the activity of isoenzymes may facilitate identification of the origin of the damaged cell.

Creatine phosphokinase (CPK) was thought to be specific for skeletal muscle when introduced by Ebashi[1] in 1959. This enzyme was used for many years to detect pre-clinical muscular dystrophy and to classify neuromuscular disorders. Since then, CPK activity has also been found in cardiac muscle and brain tissue. Isoenzymes specific for skeletal muscle, cardiac muscle and brain have been isolated, but apparently have not increased the diagnostic value of the procedure.

Because of the relative organ specificity of CPK (heart, skeletal muscle, and brain), its determination has been applied to the diagnosis of many conditions, including pulmonary embolization, thyroid disease, malignant hyperpyrexia, neuromuscular disorder, strokes, psychosis, alcoholism and myocardial infarctions. A pattern of general clinical significance has emerged that will be discussed.

Several enzyme determinations are generally available to aid the practitioner in the diagnosis of acute myocardial infarction. They are especially useful when the EKG is not diagnostic or the history is atypical. These enzyme assays also allow continued monitoring in order to detect any additional muscle necrosis that would occur with reinfarction. The enzymes most commonly used are serum glutamic oxalacetic transaminase (SGOT) and lactic dehydrogenase (LDH). However, these enzymes are not specific for cardiac muscle and elevations may be found in congestive heart failure, pulmonary embolization, liver disease and many other conditions that may be associated with the acute myocardial infarction. Moreover, red blood cells contain high concentrations of these enzymes and false elevations of SGOT and LDH can occur with minor hemolysis that might result from improper handling of the sample.

CPK, being more specific for cardiac muscle, is not elevated in the complicating conditions previously mentioned nor is it affected by hemolysis. In addition, the CPK increase occurs earlier in the course of the myocardial infarction than that of the other enzymes (Figure 1). In the classic case of easily recognizable myocardial infarction, CPK adds little or nothing to the diagnostic armamentarium. However, since the other commonly used enzymes (SGOT and LDH) may be affected by the concomitant congestive heart failure and passive liver congestion, CPK may be the enzyme of choice for monitoring the damage to the myocardium.

This series of review articles is provided by the Iowa Association of Pathologists. Dr. Barrett is an assistant professor in the Department of Pathology at The U. of I. College of Medicine. Mr. Oskvig is a sophomore medical student.

CPK is also elevated whenever there is destruction of striated muscle. For instance, intramuscular injections, especially of long acting medications, may cause increased CPK levels that can be misleading in the monitoring of myocardial infarctions. Such spurious elevations of enzyme levels should always be considered in evaluating laboratory data. In the postoperative state there are also similar elevations of CPK activity that may easily mimic myocardial infarction.

Another important application of the CPK determination is to separate primary degenerative muscle diseases from other causes of muscular weakness. Very high levels are found in the Duchenne type of muscular dystrophy; lower levels are encountered in other forms of muscular dystrophy, polymyositis and dermatomyositis; and no elevations are seen in diseases of muscular weakness without active muscle necrosis (lower motor neuron disease, peripheral neuropathy, thyrotoxic myopathy and myasthenia gravis).[2, 3]

Since the discovery of CPK in brain tissue, numerous investigators have measured its levels in almost every conceivable neurologic and psychiatric disorder. The most consistent elevations have been in cases of head injury, cerebral vascular accidents, encephalitis, meningitis and acute and chronic psychoses. Conflicting opinions exist as to the clinical usefulness of this determination in the diagnosis of cerebral disease, but it does appear there is no definite correlation with disease severity or with prognosis. In fact, for reasons that are unknown or at best speculative, much of the elevation seen in these conditions has been shown to be of skeletal muscle origin.[4]

Because CPK levels may be elevated in patients with hypothyroidism, this determination has been suggested as a useful thyroid function or monitoring test.[5] There are however, more specific tests of thyroid function available such as T_3 and T_4 levels. It is well to keep in mind the association of elevated levels of CPK with hypothyroidism in order to avoid unnecessary searches for a muscle or brain lesion in these patients. Here too, the circulating CPK appears to be released by skeletal muscle, perhaps in relation to the increased permeability of the muscle fibers that is found in this condition.

A chart summarizing the conditions commonly associated with CPK elevation and a range of reported values is presented in Figure 2.

In summary, CPK is relatively organ specific, is not affected by hemolysis, and shows an earlier elevation than other enzymes in acute myocardial necrosis. Its main diagnostic value lies in the separation of neuromuscular diseases, detection of preclinical muscular dystrophy and female carriers of Duchenne muscular dystrophy, and the early detection of myocardial infarctions, especially those with atypical histories. Its greatest clinical use may be that of indicating new or continued myocardial necrosis when other enzymes are elevated as a result of co-existent diseases. In evaluating the significance of CPK elevations, it must be remembered that circulating levels may be increased in cerebral diseases, but the inconsistent and variable nature of the elevations limit the diagnostic value of this determination in diagnosing a specific cerebral disease.

REFERENCES

The references noted in this article are available from either the authors or the JOURNAL OF THE IOWA MEDICAL SOCIETY.

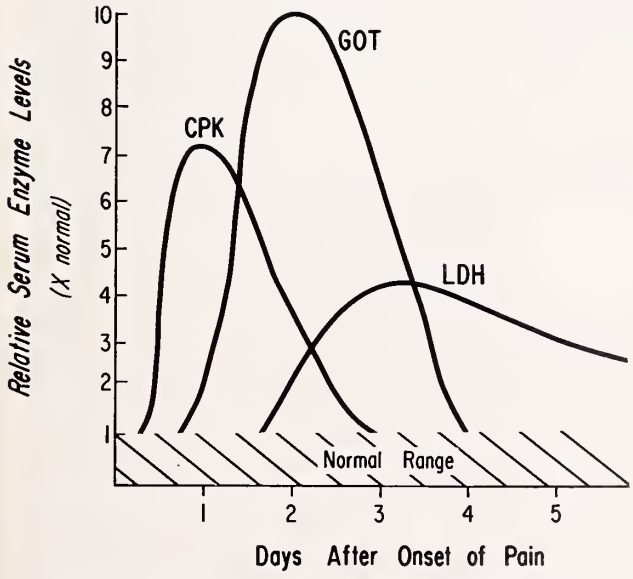


Figure 1. Enzyme elevations in myocardial infarctions.

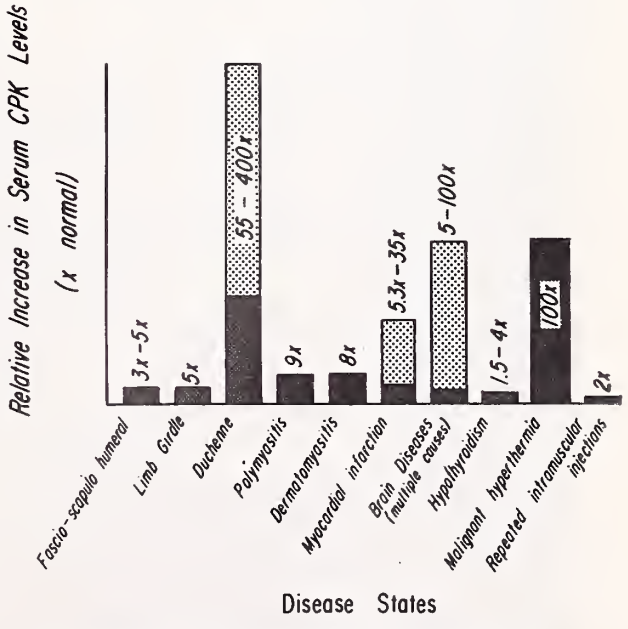
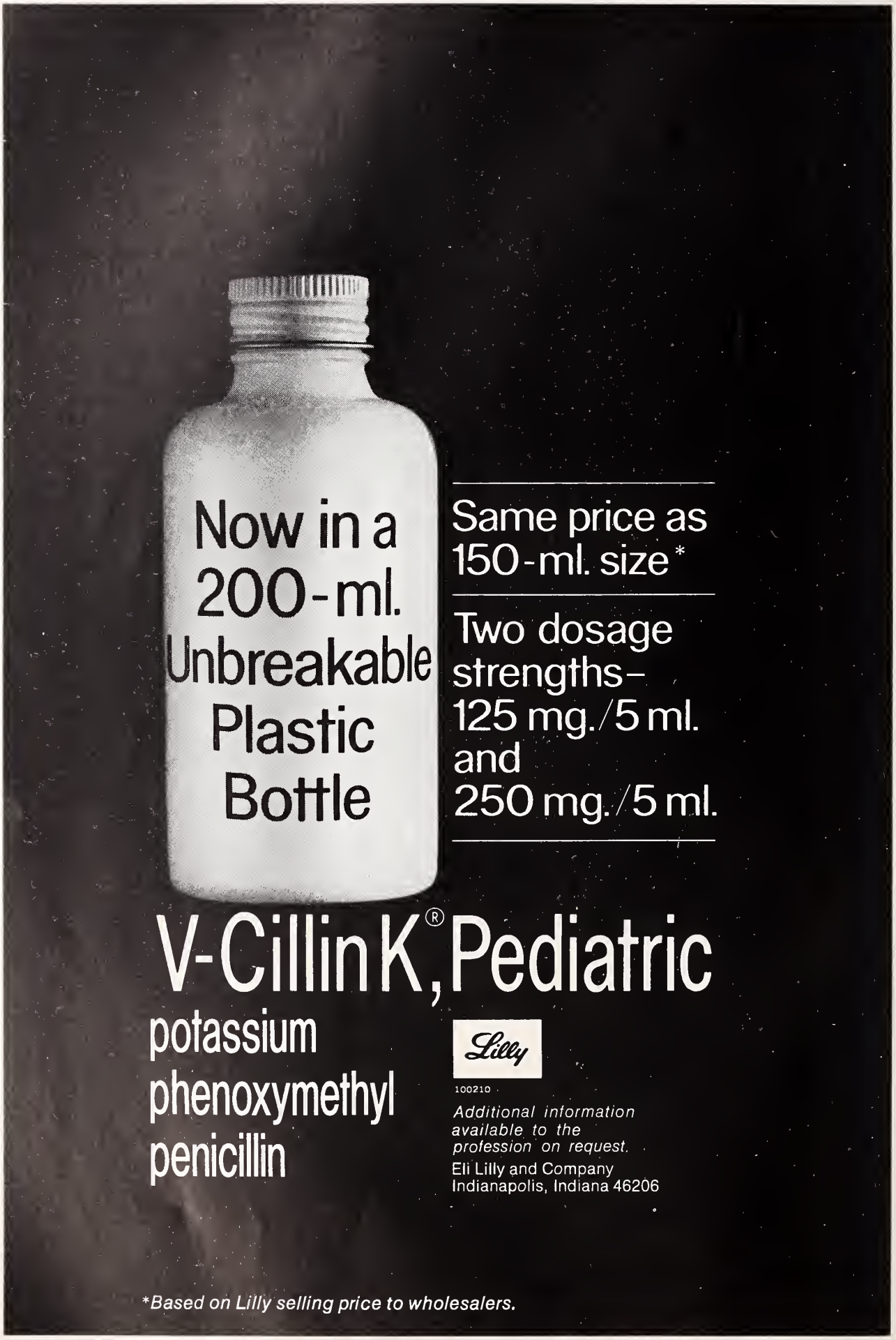


Figure 2. CPK levels present in various diseases.


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SCIENTIFIC ARTICLES

Acute Cholecystitis Following Unrelated Surgical Operations

JOSEPH CALLAGHAN, M.D., F.A.C.S.
Decorah

Surgical complications in the postoperative period which are totally unrelated to the original operation are fortunately rare. Medical students and clinicians in their formative years of training are constantly urged to attempt to fit the multiplicity of signs and symptoms encountered in any one patient into the overall picture of one specific disease process. In most instances this is the correct approach, but in an endeavor to consistently do so, totally unrelated postoperative complications may be overlooked. Acute postoperative cholecystitis following unrelated surgical procedures is such a complication. The following five cases were seen over a nine-month period in a small 45-bed community hospital and led to this review of the subject.

CASE I. E.L.

A 71-year-old diabetic housewife was involved in an auto accident September 8, 1968. She sustained a fractured pelvis, lacerated bladder with urinary extravasation, cerebral contusion and a serious fracture dislocation of her second cervical vertebra. The accident was not discovered for two hours, and when she was admitted to Winneshiek County Memorial Hospital she was in deep coma, shock and oliguria. Treatment consisted of aggressive fluid and electrolyte replacement followed by suprapubic cystostomy and suture repair of the bladder laceration. She remained semicomatose, in cervical traction, and in critical condition for several weeks when she then slowly recovered. She was discharged January 8, 1969, and was able to walk with a cane.

Nine days later the patient was readmitted to the hospital with a 24-hour history of severe upper abdominal pain with nausea and vomiting. A very tender mass was palpable in the right subcostal region. Pertinent data included a temperature of 100° F, pulse 110 per minute, WBC 28,000 per cu mm, 80% segs. She was taken to the operating room several hours after admission where a cholecystectomy was performed for a grossly gangrenous, acalculous cholecystitis. She had a generally uneventful postoperative course and was discharged from the hospital two weeks later and has since remained in comparatively good health.

CASE II. D.E.

A 25-year-old white woman underwent a

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D & C on November 26, 1968 for an incomplete abortion. Two days later she developed severe upper abdominal pain, temperature elevation, marked right upper quadrant and right flank tenderness. There was no significant vaginal discharge and on pelvic examination there were no abnormal findings apart from a 5 × 4 cm left ovarian cyst which had been noted at the time of her D & C. She was treated conservatively for six hours with intravenous fluids and antibiotics and re-examined several times. However, she remained very ill with marked right upper abdominal and flank tenderness, temperature of 101° F, WBC 23,000 per cu mm, 76% segs. She was taken to the operating room where a laparotomy disclosed an acute empyema of the gallbladder. A cholecystectomy, left ovarian cystectomy, and appendectomy were performed. The gallbladder contained multiple stones, and on histological examination several areas of focal necrosis were noted in the gallbladder wall which was densely infiltrated with polymorphs. Her postoperative course was uneventful and she was discharged eight days later.

CASE III. F.L.

A 47-year-old white male was admitted to the hospital on December 15, 1968 with a complete large bowel obstruction secondary to a lesion in the sigmoid colon. A right transverse colostomy was done on the day of admission at which time the presence of a tumor mass in the sigmoid was confirmed. Two weeks later a completely obstructing adenocarcinoma of the sigmoid colon invading the posterior wall of the bladder was removed by a left hemicolectomy with enbloc resection of approximately 40% of the posterior bladder wall. There was no evidence of distant metastases and the gallbladder was free of stones on routine palpation. The colostomy was not closed at this time and he returned to the hospital five weeks later and had this accomplished. Twelve days after this last dismissal from the hospital he was readmitted with severe upper abdominal pain, nausea, fever and chills. A markedly tender mass was palpable in the right subcostal region. His temperature was 100.6° F, WBC 13,000 per cu mm, 80% segs. A cholecystectomy was done on the day of admission. The gallbladder in this instance was grossly gangrenous and was acalculous. He was discharged eight days later and to date has shown no recurrence of his neoplastic disease.

CASE IV. F.S.

This 40-year-old white male was admitted to the hospital on April 17, 1969 with a nonobstructing adenocarcinoma of the proximal descending colon. Several days later the left half of the transverse and the entire descending colon was resected. There was no evidence of distant metastases and his gallbladder was normal on palpation. He had an unremarkable postoperative course apart from one transient episode of right anterior chest pain. He was discharged 12 days postoperatively.

Eighteen days later he was readmitted with left upper abdominal pain, fever, chills and anorexia. There was a moderate degree of left upper quadrant tenderness on physical examination. A barium enema showed an intact anastomosis, but it was still considered that an acute inflammatory process was present in the area of his previous surgery, and he was treated conservatively with antibiotics. Several days later he developed a severe pleuritic pain in his left anterior chest which was associated with occult blood in his sputum. Active anticoagulation was started for a presumed left pulmonary embolism and he later exhibited definite radiological evidence of pulmonary infarction in the base of his left lung. His chest pain and left upper quadrant pain gradually cleared up, but he then suddenly developed severe right upper quadrant pain and tenderness over his gallbladder area. An oral cholecystogram showed a nonfunctioning gallbladder. This study was repeated twice with double doses of dye, but his gallbladder failed to visualize on either occasion. His acute cholecystitis responded satisfactorily to medical management and there was no indication for surgical intervention, particularly in view of his thromboembolic disease. Six months later a single dose cholecystogram was performed and this showed a normal gallbladder without any evidence of calculi.

CASE V. L.F.

A 65-year-old diabetic white housewife had a D & C and biopsy of an ulcerating lesion of her cervix August 8, 1969. An histological diagnosis of invasive squamous cell carcinoma

of the cervix was made and she was referred to a large medical center for radiation treatment which extended over a six-week period. Two weeks after completing her course of radiation, she developed severe upper abdominal pain, nausea, fever of 102° F and chills. A large tender mass was present in the right upper quadrant and extended down beyond the level of the umbilicus. The WBC was 6,700 per cu mm, 74% segs. She underwent a cholecystectomy on the day of admission to the hospital. The gallbladder was hugely distended and acutely inflamed and contained numerous small stones. Her postoperative course was normal and she was discharged eight days later. She has since remained in comparatively good health.

DISCUSSION

It is only in the past two decades that acute postoperative cholecystitis has received the attention it merits in the surgical literature and it has yet to receive any mention in the standard surgical textbooks.

In 1884 Duncan[1] reported a fatal case of gangrenous acalculous cholecystitis which developed two days following a femoral herniorrhaphy. In 1906 Kocker[2] described a case of gangrenous cholecystitis which developed after a ventral herniorrhaphy. The subject then received little attention until Glenn[3] presented 17 cases in 1947 and described 18 additional cases in 1956.[4] In 1959 Guidry[5] reviewed 2,030 cases of acute cholecystitis which were treated over a 36-year period in the Mayo Clinic. Twenty-five of these cases occurred after a surgical procedure unrelated to the biliary tract and all of these selected cases were treated surgically. All the patients who underwent surgery in that same Clinic from 1916-1959 were studied and reported by Thompson, Ferris and Baggenstoss[6] in 1962. In this larger group of patients, 98 patients died as a result of this particular complication or associated conditions. Complete necropsy data was available in 96 of these cases. All but two of these 98 patients were treated medically. In 1968 Mandelbaum and Palmer[7] reported two cases of acute cholecystitis which developed after severe pelvic injuries but which did not have any preceding operative procedure. A series of 26 cases was presented by Bell[8] in 1969. The most recent paper on the subject is by Lindberg[9] and consists of 12 casualties from the Vietnam war who developed acute cholecystitis following surgery for unrelated battlefield trauma. Lindberg reviewed the English literature up to that time which then totalled 178 cases, but he did not include Bell's or Guidry's cases. However, it is obvious that the disease is more common than these figures would suggest and simply has not received the attention it merits in the surgical literature.

AGE AND SEX

This disease has occured in all ages from 9 to 85. (Table I) However, the most common age of those reported has been 61 years of age. Table I shows the high incidence of this disease in males while gallbladder disease in general is seen much more frequently in the female sex. Mueller-Deham,[10] on the basis of 1,000 autopsies, reported that gallstones were seven times more frequent in females than in

TABLE I

Year	Author	Age	Male (Per Cent)	Acalculous (Per Cent)	Gangrenous (Per Cent)
1956	Glenn	25-78	50	22	17
1962	Thompson	9-85	76	53	16
1969	Bell	26-87	65	24	20
1970	Lindberg	18-30	100	100	59

males in younger life, but that with advancing years the incidence becomes nearly equal in the two sexes. They also note in the age group of 70 or older that more than 50% of both sexes have cholelithiasis. These facts, in addition to the fact that each year the proportion of patients in the older age group undergoing surgery becomes greater, probably accounts for the increased reported incidence of the disease. It also helps to explain the unusually higher incidence of the disease in the male sex.

PATHOGENESIS

It is interesting in reviewing the literature to note that the preceding surgical procedures cover a wide variety of operations in all anatomical locations: ventriculorrhaphy, cataract excision, herniorrhaphy, leg amputation and cardiac surgery. (Table II) It is therefore obvious that abdominal surgery, gallbladder palpation or trauma is unrelated to the subsequent development of acute postoperative cholecystitis.

TABLE II

TYPE OF PRIMARY SURGICAL PROCEDURE[7]

	Per Cent
Colon and rectum	19.0
Other gastrointestinal (not gallbladder)	25.6
Genitourinary	19.0
Orthopedic	12.3
Gynecological	8.2
Neck and face	5.6
Neurosurgical	3.6
Cardiovascular	3.1
Plastic surgery	2.6
Mastectomy	1.0

Womack and Bricker[11] have shown experimentally that if the bile is removed from a normal gallbladder and replaced with normal saline, subsequent ligation of the cystic duct will produce no pathological changes. However, if the saline is replaced by a solution of bile salts, an acute inflammatory reaction occurs in the gallbladder wall very similar to that seen in acute acalculous cholecystitis. The severity of this reaction appears to be in direct proportion to the concentration of cholesterol and bile salts within the gallbladder.

Glenn[3] and Glenn and Wantz[4] have outlined the most generally accepted theory in the development of acute postoperative cholecystitis: Associated with the primary operation is a variable period of fasting. During this time, except possibly for the brief period of anesthesia, the liver continues to secrete bile. Cholecystokinin, the hormonal stimulant for periodic emptying of the gallbladder, is produced by the intestinal mucosa in the presence of fat and to a lesser degree by protein and carbohydrate. Consequently, during the postoperative fasting period, the gallbladder is not stimulated to release its contents and therefore, there is accumulation and concentration of bile within the gallbladder. Mucin, secreted by the gallbladder wall, adds to the viscosity of the bile while the concentration of bile salts increases from fluid absorption. This whole process may be augmented by fever, pain, anxiety and dehydration. The activity of the sphincter of Oddi is increased during the period of no oral intake of food, causing a two to threefold increase in resistance to bile flow. Drugs such as Morphine, Demerol and Codeine, which have a spasmogenic effect on the sphincter of Oddi, and a relaxant effect on the gallbladder wall, will also play a role in this process.

The supine position assumed by the postoperative patient adds a gravitational element which allows gallstones or a collection of viscous bile to settle in the outlet of the gallbladder. With the ingestion of food, especially fatty foods, forceful contraction of the gallbladder occurs in response to stimulation by cholecystokinin and a gallstone or a plug of viscous bile may then be impacted into the cystic duct causing an acute obstructive cholecystitis. A substantial number of cases which have been reported developed the symptoms of their disease shortly after eating their first solid meal in the postoperative period. However, the interval of time between the initial operation and the development of acute postoperative cholecystitis has varied from 1 to 46 days.[8]

SIGNS AND SYMPTOMS

This complication probably occurs more frequently in the period after surgery than is commonly realized. In the postoperative patient, and particularly in the elderly patient, postoperative fever, abdominal pain, right lower lobe pneumonitis, atelectasis or embolism may all obscure or be mistaken for the actual disease process: Acute postoperative cholecystitis. If the gallbladder is known to contain gallstones either by actual palpation at the original operation or by a cholecystogram, this will be of much help to the surgeon. If, however, the gallbladder is known to have been free of disease at the time of the first operation, the physician who is unaware of the entity of acalculous postoperative cholecystitis may be misled in his management of the case. In general, the signs and symptoms of ordinary cholecystitis and postoperative cholecystitis are similar. If an acute hydrops or empyema develops, the presenting mass should make the diagnosis obvious. In Thompson's series,[6] high fever and tachycardia were always present at some stage of the disease. Abdominal pain, either in the epigastrium or right upper quadrant, was the prominent symptom. Abdominal distension was present in 40% and clinically detectable jaundice was present in 21%. All cases had a leucocyte count greater than 10,000 per cu mm

(Please turn to page 124)

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Adverse Reactions: *Central Nervous System:* Drowsiness, ataxia, dizziness, slurred speech, headache, vertigo, weakness, paresthesias, impairment of visual accommodation, euphoria, overstimulation, paradoxical excitement, fast EEG activity. *Gastrointestinal:* Nausea, vomiting, diarrhea. *Cardiovascular:* Palpitations, tachycardia, various forms of arrhythmia, transient ECG changes, syncope; also, hypotensive crises (including one fatal case). *Allergic or Idiosyncratic:* Usually after 1-4 doses. Milder reactions: itchy, urticarial, or erythematous maculopapular rash (generalized or confined to groin). Others: leukopenia, acute nonthrombocytopenic purpura, petechiae, ecchymoses, eosinophilia, peripheral edema, adenopathy, fever, fixed drug eruption with cross reaction to carisoprodol, and cross sensitivity between meprobamate/mebutamate and meprobamate/carbromal. More severe, rare hypersensitivity: hyperpyrexia, chills, angioneurotic edema, bronchospasm, oliguria, anuria, anaphylaxis, erythema multiforme, exfoliative dermatitis, stomatitis, proctitis, Stevens-Johnson syndrome; bullous dermatitis (one fatal case after meprobamate plus prednisolone). Stop drug, treat symptomatically (e.g., possible use of epinephrine, antihistamines, and in severe cases corticosteroids). *Hematologic:* Agranulocytosis and aplastic anemia (rarely fatal), but no causal relationship established. Rarely, thrombocytopenic purpura. *Other:* Exacerbation of porphyric symptoms.
Usual Adult Dosage: 1200 to 1600 mg daily, in three or four divided doses; doses above 2400 mg daily not recommended.
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and 20% had an elevation of more than 20,000.

A nonfunctioning gallbladder on oral or intravenous cholecystography in the presence of some of the above signs or symptoms should be of diagnostic help to the attending physician, but a suspicious awareness of the entity may be of equal or greater help in reaching the correct diagnosis.

TREATMENT

There is a general consensus among writers on the subject that early surgical intervention is strongly indicated. The predilection of this disease for the aged patient and its well documented fulminating character, associated with a comparatively high incidence of gangrene, makes this course advisable. The milder type of disease in the younger patient may be managed conservatively in some cases. Ninety-six of the 98 cases reported by Thompson[6] were treated by the usual supportive nonsurgical measures and all 96 patients died. However, Guidry[5] presented 25 selected cases from the same medical center who were treated by surgical intervention with a mortality rate of 8% which is approximately the same figure reported by other authors.[4, 8]

SUMMARY

Five cases of acute postoperative cholecystitis are presented. The preceding surgical procedures consisted of two colon resections; two D & C's, one with cervical biopsy; and one case of suture repair of a traumatically lacerated bladder. Three of the five gallbladders were gangrenous and three were also acalculous. Four were treated by cholecystectomy and one case was treated conservatively with satisfactory results. This disease may occur after any type of operation in any part of the body. It is frequently acalculous, and often is gangrenous and is more common in males than females. The treatment of choice is early cholecystectomy in most instances.

REFERENCES

The references noted in this article are available on request from either the author or the JOURNAL OF THE IOWA MEDICAL SOCIETY.

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Fathie Shunt

Application in Carotid Artery Occlusion and the Procedure of Endarterectomy

KAZEM FATHIE, M.D., F.A.C.S.
Cedar Rapids

Carotid artery occlusion is caused by atherosclerosis, arteriosclerosis and atheroma, and is compounded by the extension of cholesterol and calcium deposits into the branches of the common carotid artery, specifically the internal carotid artery. It has been known for some time that the end result of the cerebrovascular accident is rather massive. Devastating neurological symptoms appear such as paralysis of the upper and lower extremities or face, speech difficulties, visual blindness and/or aphasia. Transient episodes of dizziness, blackout spells and light headedness have been observed in many patients with partial occlusion of the internal carotid artery. Lowering of the blood pressure in the patient with partial occlusion of the carotid artery has been one of the prime factors causing permanent or irreversible neurological deficit.

The surgical approach to the removal of the atheroma, called an endarterectomy, has not been consistently successful because long standing closure of the internal and common carotid artery presents a surgical hazard in resulting brain damage. Short term closure of the carotid artery has not allowed sufficient time for the surgeon to remove the atheroma completely from the wall of the arteries. Application of conventional shunting has been basically ineffective for correct perfusion of the arteries and brain.

It has been because of this important time consideration that we have developed a device called FATHIE SHUNT. The unit is a three-way shunt (Figure 1) made of medical-grade silicone rubber with imbedded wire reinforcement throughout to eliminate kinking and occlusion of the lumens. The shunt has been designed to fit the anatomical configuration of the internal, external and common carotid artery and has an inflation balloon at the end of each tube to occlude the space between the outside of the shunt branches and the respective arteries. Each balloon has its own small diameter inflation tube for individual control.

When the shunt is applied and inflation

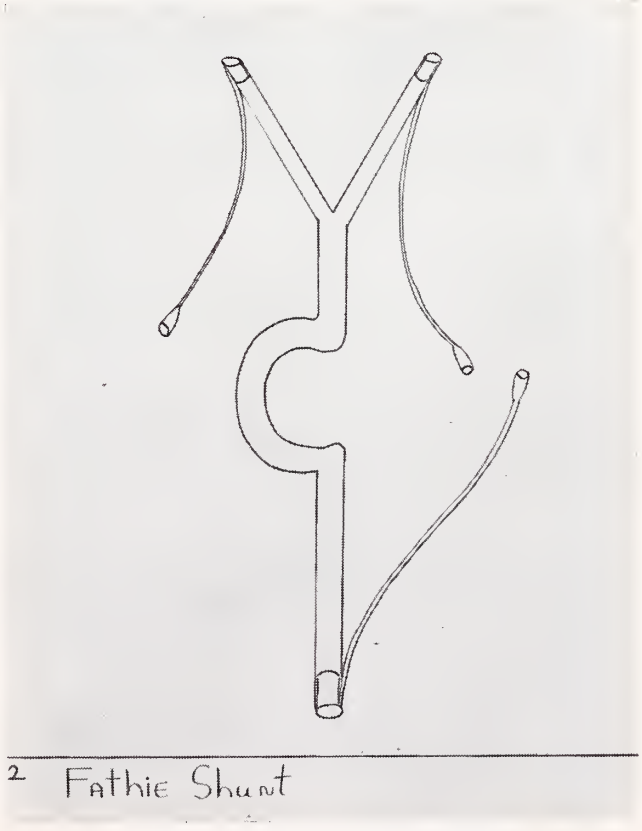


Figure 1. Diagram of Fathie Shunt.

Dr. Fathie is in the private practice of neurological surgery in Cedar Rapids. The Fathie Shunt was exhibited at the Congress of Neurological Surgeons in 1971 and was recognized as an outstanding exhibit.

carried out, the surgeon is able to remove the temporary ligation of the internal, external and common carotid arteries allowing the blood to reach the brain in the specific amount previously received. The surgeon can take his time and make an incision to remove the endarterectomy plaque with the utmost accuracy and completeness. Initially this shunt was made in the shape of the artery but was later modified to allow the surgeon more room to work. This was accomplished by offsetting the main section of the shunt to stay clear of the trunk of the vessel. Later, another modification distinguished between the right Fathie Shunt and the left Fathie Shunt, one for each side. Different size shunts have been made in both the right and left shapes to accommodate the various size arteries.

Upon completion of the surgery, temporary ligation of the arteries is again applied, the Fathie Shunt removed, and the artery closed. During the preliminary stage of development, the shunt was initially used in the laboratory to determine the feasibility of clinical utilization. Once proven in the laboratory, clinical application of the device was made successfully in the operating room with minimal operative complications and good postoperative recovery.

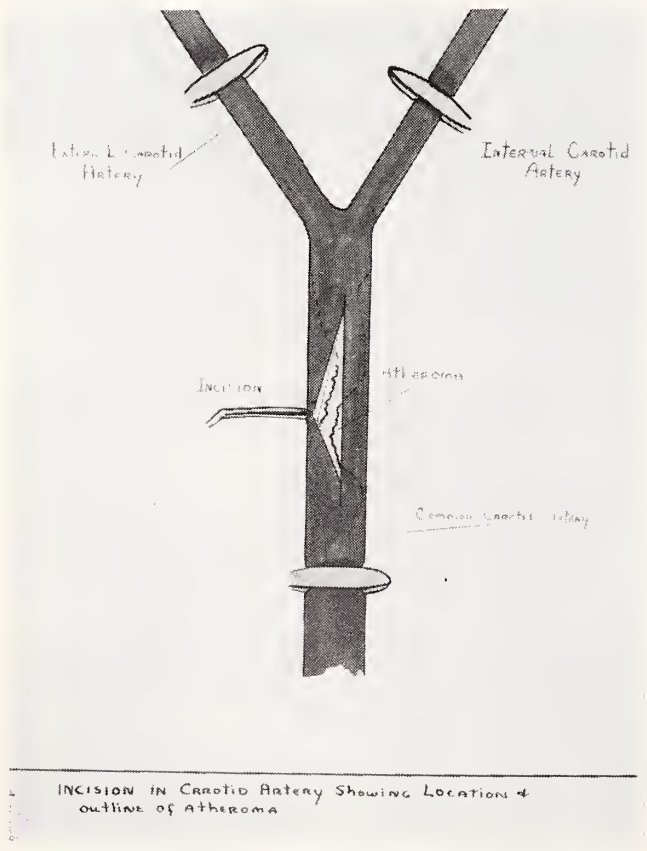


Figure 2. Incision in carotid artery showing location and outline of atheroma.

The application of this shunt is valuable when dealing primarily with partial occlusion of the carotid artery, and occasionally in the complete occlusion of the internal carotid artery with retrograde bleeding from behind the occlusion. In cases of internal carotid occlusion when there is no retrograde hemorrhage from behind the occlusion, there would be no need to apply the Fathie Shunt.

SURGICAL TECHNIQUE

Prior to starting the surgery, all sizes of Fathie Shunts should be properly cleaned and sterilized. All inflation balloons should be checked for leakage using sterile, normal saline under aseptic conditions. This is necessary because of the delicate nature of the balloon construction which can be damaged by sharp instruments or rough handling.

After opening the neck in the usual manner and exposing the internal carotid artery and external carotid artery, place an umbilical band under each artery and free each artery of periarterial tissues as well as surrounding neighboring tissues. Care should be taken to expose the external and internal arteries as completely and as high as possible and the common carotid artery as low and completely as possible. The size of the artery can then be observed and the proper size of Fathie Shunt selected for the shunting. The common carotid, external carotid and internal carotid arteries are occluded by application of the Bulldog clamp. An incision approximately 1½ cms in length is made over the anterior border of the common carotid artery (Figure 2). If there is any atheroma observed at the center portion of the artery, it is removed and the rest of the atherosclerosis left alone.

The common carotid branch of the shunt is then placed in the common carotid artery (Figure 3) and inflation of the balloon carried out sufficiently to stop leakage around the shunt tube. Care is taken not to expand or stretch the artery to an abnormal size during the inflation. Remove the Bulldog clamp on the common carotid artery to allow blood to pass through the shunt and exit from the external and internal branches of the shunt. The

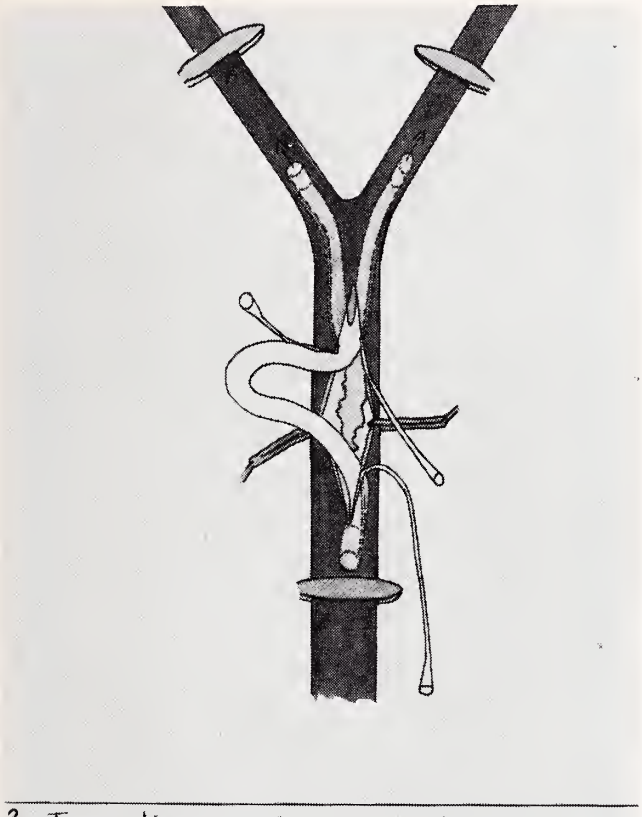


Figure 3. Insertion of Fathie Shunt.

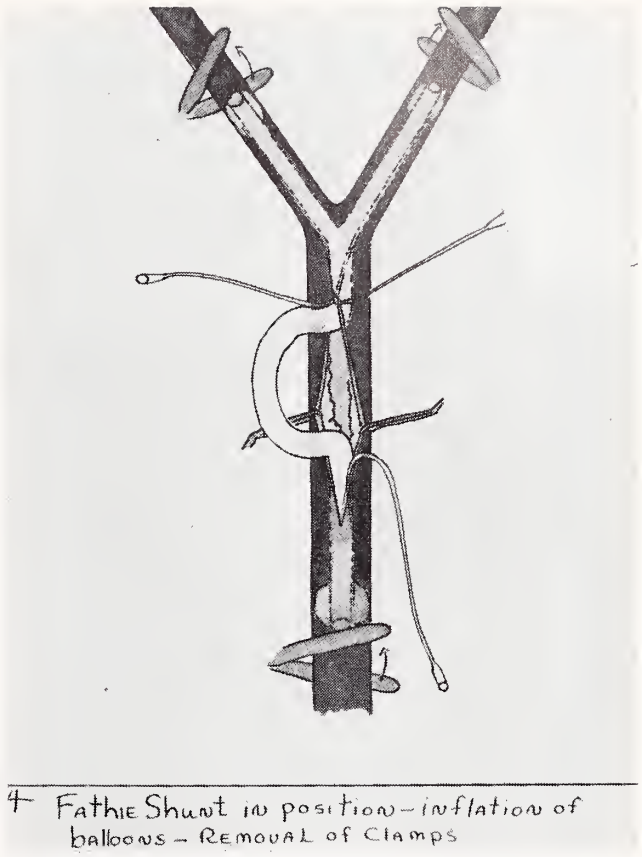


Figure 4. Shunt in position showing inflation of balloons and removal of clamps.

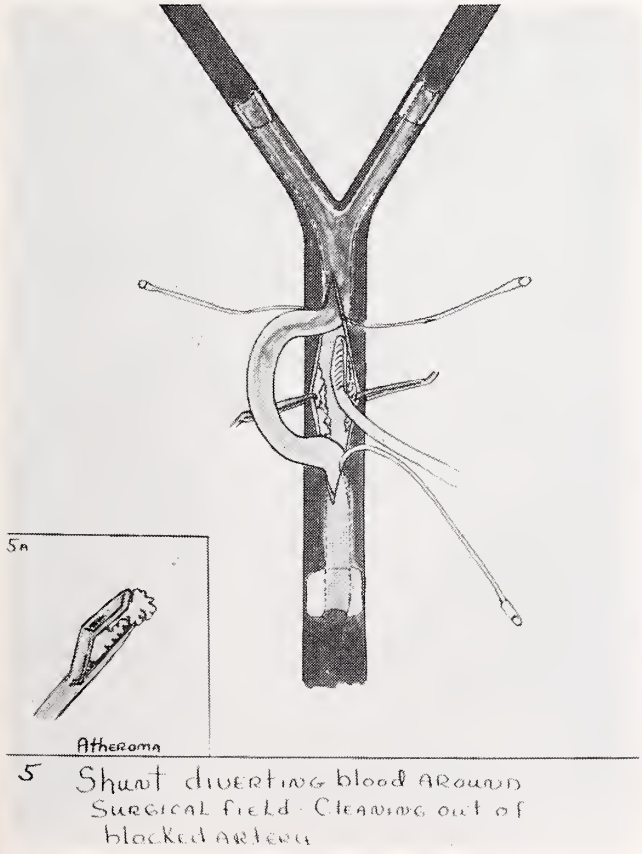


Figure 5. Fathie Shunt diverting the blood around the surgical field allowing removal of the atheroma.

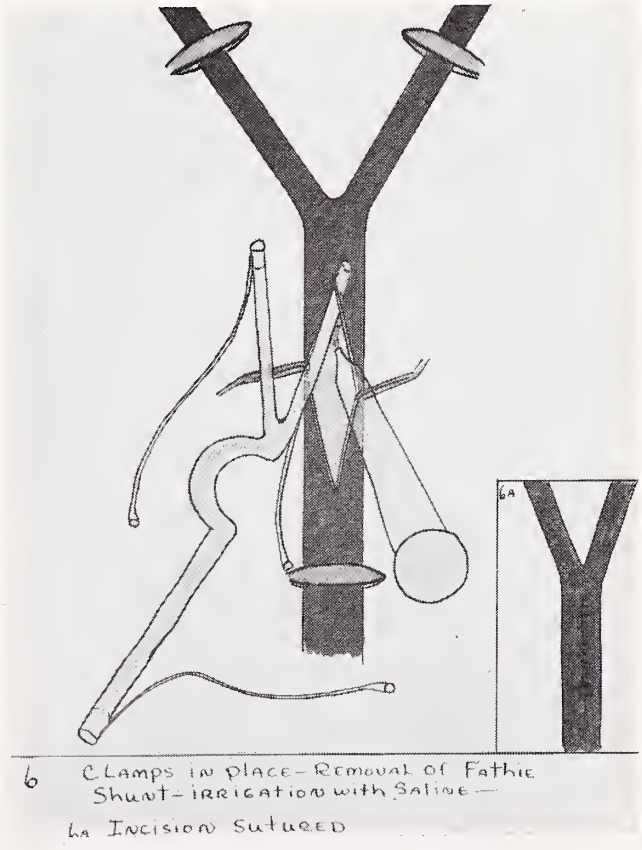


Figure 6. Removal of the shunt with ligation clamps in place. Irrigation utilized. (6A) Incision sutured closed.

two branches are then occluded temporarily by Bulldog clamps or by placing a clamp in the lower portion of the common carotid artery of the shunt. Then the internal carotid artery portion of the shunt is inserted into the internal carotid artery making sure that no air is trapped in between the tube and the arterial wall by flushing the blood into the tubes and washing the arteries. The inflation is carried out again the same way (Figure 4) until the artery is closed; at this time, the internal carotid artery branch could be opened by removal of the clamp and the blood will rush from the common carotid artery into the internal carotid artery. The same procedure can now be performed on the third branch of the shunt into the external carotid artery. On some occasions, this branch can be left without any usage; however, we prefer to place the third branch into the external carotid artery, inflate the balloon with fluid, open the external carotid artery, and have the circulation established in all three routes. It should be mentioned that the left Fathie Shunt should be used for the left carotid artery and the right side for the right carotid artery in order to have the arch of the shunt always facing outside and away from the surgical field. It is also preferred that no air be injected into the inflating balloons and at all times the inflation be done by injection of saline solution or sterile water. In case the balloon becomes defective during surgery, this precautionary measure would ensure that no air would enter the arterial system to cause a cerebral embolism.

The surgeon can now remove the atheroma from the wall of the artery accurately and extensively without the pressure of time (Figure 5). After removing the atheroma, a heparin solution is applied to the arterial region and the area is irrigated with sterile, normal saline. The incision can now be closed to approximately 1 cm and Bulldog clamps again placed above the inflation balloons in each of the three branches. The Fathie Shunt is then removed from each vessel branch (Figure 6). The common carotid artery is unclamped first and irrigated with blood to eliminate air; then, one at a time, the clamps on the external and internal carotid arteries are released. During this procedure, Surgicell is utilized on top of the artery, and the incision is closed layer by layer in the conventional manner.

It should be noted that the periods of time

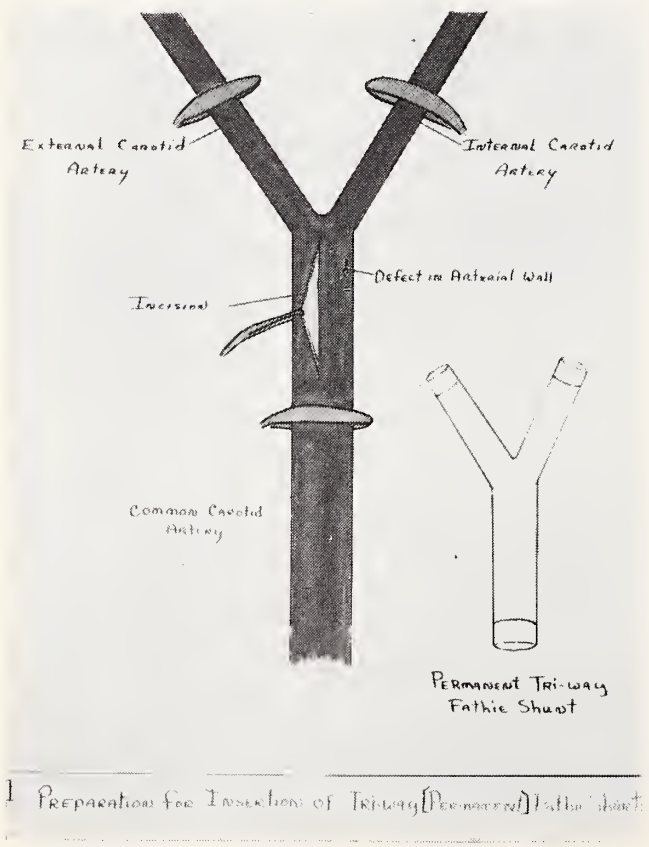


Figure 7. Preparation for insertion of permanent shunt.

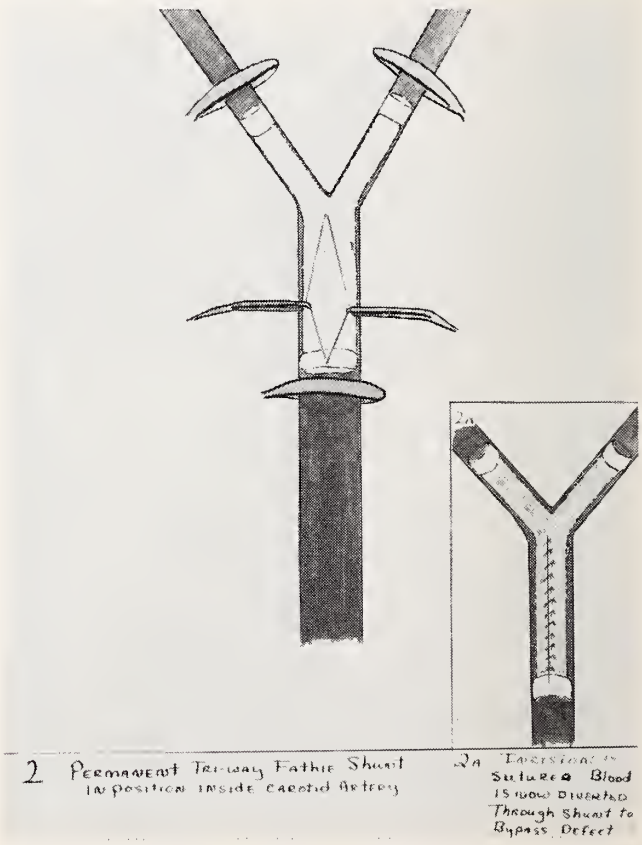


Figure 8. Permanent shunt in position inside carotid artery.

required for ligation of the arteries to insert the shunt device and to subsequently remove the shunt are both approximately two minutes in duration. The two periods of occlusion have not caused any observed neurological deficit.

We are also working on a further development for utilization in cases of endarterectomy when a defect is present in the wall of the common carotid arteries caused by atheroma and compression. The Shunt (Figure 7), a modification of the Fathie Shunt described above, would be placed in the artery and left permanently in order to prevent hemorrhaging or stricture of the mother vessels (Figure 8).

CONCLUSION

Further clinical investigation will be required to perfect this procedure so that, in the future, it can be performed less hazardously with the end result being quite valuable in the immediate recovery of stroke patients. It should be mentioned that, in the case of embolism, thrombosis, and the immediate sudden onset attack of occlusion, the previous method of endarterectomy and removal of clot would be as valuable as before.

SOURCE

The silicone rubber shunts described in this paper are manufactured by Heyer-Schulte Corporation, 5377 Overpass Road, Santa Barbara, California 93105. While this article is being published, the Heyer-Schulte Corporation has advised that seven centers in the United States and one in France are using the shunt. No study on its use in these locations has been completed.

Surgical Treatment of Chronic Pancreatitis

ROBERT R. TAUBE, M.D., and
SIROOS SAFAIE-SHIRAZI, M.D.
Iowa City

CHRONIC PANCREATITIS results when the pancreas is irreversibly damaged by inflammation. The damage may be minimal and the patient will have no significant disability. However, the damage may be severe and totally disabling because of pain and pancreatic insufficiency, both endocrine and exocrine.

In general, chronic pancreatitis is treated medically. Surgery is reserved for those cases in which the associated pain is uncontrollable by ordinary means, and for those cases in which pancreatic pseudocyst or abscess develop. However, the patient should not be allowed to reach the point of narcotic addiction before considering surgical intervention. If a patient with chronic relapsing pancreatitis is receiving adequate medical therapy and experiences increasingly frequent attacks, if the pain cannot be controlled with analgesics other than narcotics, or if a pancreatic pseudocyst or abscess develops, then operative intervention is indicated.

The operative treatment of chronic pancreatitis is controversial. A variety of procedures have been proposed for the surgical correction of this disease. The fact that so many diverse procedures exist testifies to the complexity of the problem. Although many theories have been proposed concerning the cause of chronic pancreatitis and the conditions associated with it, the etiology remains obscure and controversial. No attempt will be made here to solve this enigma.

The purpose of this study is to outline a rational approach to operative treatment of the patient with chronic pancreatitis and review the experience during the last decade at University Hospitals.

CLINICAL MATERIAL

The most common clinical features associated with chronic pancreatitis in 38 patients operated upon over the past decade are tabulated in Table I. Pain and weight loss were the most frequently associated findings. Jaun-

Dr. Taube is an assistant professor in the Department of Surgery at The U. of I. College of Medicine. Dr. Safaie-Shirazi is senior resident in surgery.

TABLE I

CLINICAL FEATURES IN 38 PATIENTS WITH CHRONIC PANCREATITIS TREATED DURING 1960 THROUGH 1969

	Number of Cases	Per Cent
Pain	37	97
Weight Loss	28	74
Jaundice	16	42
Pancreatolithiasis	15	39
Alcoholism	14	37
Biliary Tract Disease	11	29
Pancreatic Cysts	10	26
Diabetes Mellitus	8	21

dice was noted in 47% of the cases. Alcoholism was associated in 37% and biliary tract disease in 29%. Eight patients had diabetes mellitus. Six patients had secretin tests performed and all were abnormal. Pancreatolithiasis was seen on x-ray in 39% of the patients and pancreatic pseudocysts were noted at surgery in 26% of the cases.

RESULTS

Table II indicates the types of operative procedures employed in these cases. Forty-eight operations were performed in 38 patients. Follow up from 6 months to 4 years is available in 22 patients.

The variety of procedures performed indicates the diverse opinion regarding the operative management of this disease. Satisfactory results were obtained after 20 operations or 42%. A satisfactory result is defined as relief of pain and weight gain 6 months after surgery.

Over half of all the operations done produced unsatisfactory results. Twenty-three operative procedures were performed on the biliary tract only (operations numbered 1-4, Table II) and 8 or 34% had satisfactory results. However, 66% (12 of 18) of those patients having direct procedures on the pancreas (operations 7-12, Table II) obtained a satisfactory result.

One patient died in the hospital after operation, an operative mortality rate of 2.6%.

DISCUSSION

The associated clinical findings in this group of patients are fairly typical of this disease, with some exceptions. Almost half the cases exhibited jaundice at some time in the course of their disease. This is in contrast to a 14% jaundice rate reported by Warren in a large series.[1] Of the cases reported here with jaundice, only 6 had concomitant biliary tract stones to account for it. Jaundice associated with chronic pancreatitis usually indicated a severe form of the disease.

If biliary tract disease associated with early pancreatitis is corrected, the pancreatitis is usually resolved without further surgery.[2, 3, 4, 5] Paloyan found a small number of cases (3-5%) of chronic pancreatitis associated with biliary tract disease in which pancreatitis had progressed despite apparent correction of the biliary tract problem.[6] However, most series of chronic pancreatitis report about one-third of the patients have associated biliary tract pathology. Twenty-nine per cent of the patients in this series had biliary tract problems. Some authors suggest a reverse relationship, that is, the diseased biliary tract is a result of pancreatic disease.[7]

The simultaneous association of pancreato-

(Please turn to page 131)

TABLE II

RESULTS OF OPERATIVE PROCEDURES FOR CHRONIC PANCREATITIS IN PATIENTS TREATED DURING 1960 THROUGH 1969

	Number of Procedures	Results: Satisfactory	Results: Unsatisfactory
1. Cholecystectomy	6	3	3
2. Cholecystectomy and Common Duct Exploration	7	2	5
3. Cholecystectomy and Common Duct Exploration and Sphincterotomy	5	2	3
4. Cholecysto or Choledocho-jejunostomy	5	1	4
5. Laparotomy	3	—	3
6. Splanchnic Neurectomy	4	—	4
7. Sphincterotomy and Roux-en-Y Drainage of Pancreas	1	1	—
8. Sphincterotomy, Common Duct Exploration and Drainage of Pseudocyst	2	—	2
9. Drainage of Pseudocyst	4	2	2
10. Roux-en-Y Drainage of Pancreas	5	4	1
11. Partial Pancreatectomy and Roux-en-Y Drainage	5	4	1
12. Total Pancreatectomy	1	1	—
	48	20	28



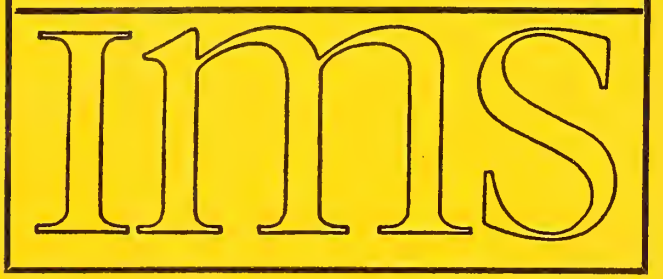
IOWA MEDICAL SOCIETY

1972 ANNUAL MEETING

April 23 to 26

Hotel Fort Des Moines

IOWA MEDICAL SOCIETY





May I invite you to examine this Advance Program for the 1972 Annual Meeting of the Iowa Medical Society. I believe you will agree the Society's Program Committee has performed its duties most ably. The topics to be considered April 24 and 25 are of broad interest and should appeal to many Iowa physicians. The speakers are of high caliber.

I personally hope you will reserve time on your schedule to attend the 1972 Annual Meeting in Des Moines. It will be time well spent.

L. J. O'BRIEN, M.D., President

GENERAL SESSIONS

HOTEL FORT DES MOINES
STATE BALLROOM—MEZZANINE

MONDAY, APRIL 24, 1972

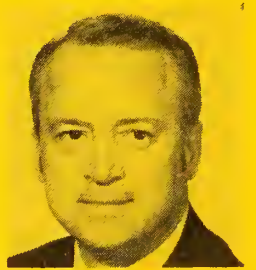
8:00 A.M.—EXHIBITS/EARLY BIRD BREAKFAST

8:15 A.M.—SPECIAL FILM SHOWING

8:55 A.M.—INVOCATION

REVEREND GREGORY LUCEY, S.J., PRESIDENT, CHAMPION HIGH SCHOOL, PRAIRIE DU CHIEN, WISCONSIN

1972 PROGRAM COMMITTEE



H. R. HIRLEMAN, M.D., Chm.



H. E. WICHERN, M.D.



R. M. CAPLAN, M.D.



J. G. NAPIER, M.D.



M. E. KRAUSHAAR, M.D.



C. R. ASCHOFF, M.D.



G. G. SPELLMAN, M.D.

MONDAY, APRIL 24, 1972

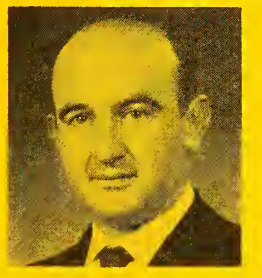
9:00 A.M.—TRANSPLANT SURGERY: CURRENT DONOR & RECIPIENT PROBLEMS



ISRAEL PENN, M.D.

Dr. Penn is an Associate Professor of Surgery at the University of Colorado School of Medicine. He is also Assistant Chief of Surgery at the Veterans Administration Hospital in Denver. Dr. Penn is a Fellow of the Royal College of Surgeons (England and Canada), and a Diplomate of the American Board of Surgery.

9:30 A.M.—HOW TO MAKE AN INTELLIGENT REFERRAL OF THE ALCOHOLIC PATIENT



J. C. N. BROWN, M.D.

Dr. Brown is in the private practice of psychiatry in Iowa City. A native of Cork, Ireland, Dr. Brown attended medical school at the National University of Ireland. He interned at Loyola Mercy Hospital in Chicago, Illinois, and took a psychiatric residency at The University of Iowa.

10:00 A.M.—RECESS TO VISIT EXHIBITS

10:45 A.M.—REPORT FROM COLLEGE OF MEDICINE



JOHN W. ECKSTEIN, M.D.

Dr. Eckstein is Dean of The U. of I. College of Medicine. He is a Director of the Iowa Heart Association, past Vice-President of the American Heart Association and a member of the Study Committee on Primary Care of the Association of American Medical Colleges. He is a Fellow of the American College of Surgeons and the American College of Chest Physicians.

11:00 A.M.—FIRST YEAR REPORT: FAMILY PRACTICE DEPARTMENT U. OF I. COLLEGE OF MEDICINE



ROBT. E. RAKEL, M.D.

Dr. Rakel is in his second year as Head of the Department of Family Practice at The U. of I. College of Medicine. He was formerly Chairman of the Family Practice Program in the College of Medicine at The University of California (Irvine). Dr. Rakel is a Diplomate of the American Board of Family Practice.

11:15 A.M.—THE NEEDS OF THE DYING PATIENT



ELISABETH KÜBLER ROSS, M.D.

Dr. Ross is Medical Director, Family Service & Mental Health Center, South Cook County, Chicago Heights. An international consultant in the care of dying patients, Dr. Ross is a member of the American Psychiatric Association, the American Psychomatic Society and serves on the Editorial Board, Thanatology Foundation, Columbia University.

11:45 A.M.—RECESS TO VISIT EXHIBITS

12:00 NOON—ORGANIZING TRAUMA CARE IN IOWA

A Luncheon Program



ROBT. E. CONDON, M.D.

Dr. Condon is Professor and Head of the Department of Surgery at The U. of I. College of Medicine. A Diplomate of the American Board of Surgery, Dr. Condon is Associate Editor, *Review of Surgery*, and an Editorial Board Member, *Journal of Surgical Oncology*. He is a Fellow of the American College of Surgeons, and a member of the Dean's Committee, Veterans Administration Hospital.

MONDAY AFTERNOON SEMINARS

The Monday afternoon program will feature seminars on topics of general interest to Iowa physicians. The subjects, times and locations are noted on the schedule which appears below.

2:00 P.M.

GOVERNOR'S ROOM

THE DOCTOR AS SEEN BY THE ALCOHOLIC:

. . . A BUSINESSMAN

. . . A BUSINESSWOMAN

. . . A MEDICAL DOCTOR

. . . A WOMAN ALCOHOLISM COUNSELOR

PANEL MODERATOR:

CHESTER F. McCLURE, M.D.
Decorah

MEDICAL DIRECTOR, NORTHEAST IOWA MENTAL HEALTH CENTER

CAPITOL ROOM

MANAGEMENT OF MULTIPLE SEVERE INJURIES:

PRINCIPLES OF TRIAGE & INITIAL RESUSCITATION
ROBERT R. TAUBE, M.D., Iowa City

EVALUATION & INITIAL CARE OF:

HEAD INJURIES
CARL GRAF, M.D.
Iowa City

CERVICAL & SPINE INJURIES
DENNIS McDONNELL, M.D.
Iowa City

THORACIC INJURIES
DONALD B. DOTY, M.D.
Iowa City

ABDOMINAL TRAUMA
KENNETH J. PRINTEN, M.D.
Iowa City

VASCULAR INJURY
WM. H. BAKER, M.D.
Iowa City

DISLOCATIONS & FRACTURES
CHAS. HARTFORD, M.D.
Iowa City

COMPLICATIONS OF STRESS IN SEVERE INJURY
ROBT. E. CONDON, M.D.
Iowa City

2:45 P.M.—RECESS TO VISIT EXHIBITS

3:30 P.M.

GOVERNOR'S ROOM

CRISIS OF DYING

ELISABETH K. ROSS, M.D.
Flossmoor, Illinois

ISRAEL PENN, M.D.
Denver, Colorado

DAVID BELGUM, PH.D.
Iowa City

RUSSELL C. STRIFFLER, M.DIV.
Cedar Rapids

CAPITOL ROOM

PANEL MODERATOR:
PAUL FERGUSON, M.D.
Lake City

CHAIRMAN, COMMITTEE ON MEDICINE & RELIGION, IOWA MEDICAL SOCIETY

CAPITOL ROOM

PRINCIPLES OF MANAGEMENT OF THE MULTIPLE SEVERE INJURED PATIENT

(CASE REPRESENTATIONS)

ROUNDTABLE DISCUSSIONS

MONDAY AFTERNOON SEMINAR SPEAKERS


DR. McCLURE


DR. TAUBE


DR. GRAF

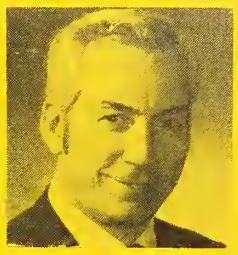

DR. McDONNELL


DR. DOTY


DR. PRINTEN


DR. BAKER


DR. HARTFORD


DR. CONDON


DR. ROSS


DR. PENN


DR. BELGUM


REV. STRIFFLER


DR. FERGUSON

CHESTER F. McCLURE, M.D., Staff Psychiatrist & Medical Director, Northeast Iowa Mental Health Center, Decorah; Former Medical Director, Alcohol Unit, Independence Mental Health Institute. **ROBT. H. TAUBE, M.D.,** Assistant Professor of Surgery, U. of I. College of Medicine; Member, American College of Surgeons. **CARL J. GRAF, M.D.,** Professor of Surgery, Division of Neurological Surgery, U. of I. College of Medicine. **DENNIS McDONNELL, M.D.,** Assistant Professor of Surgery, U. of I. College of Medicine. **DONALD D. DOTY, M.D.,** Assistant Professor, Division of Thoracic & Cardiovascular Surgery, U. of I. College of Medicine; Diplomate, American Board of Surgery and Thoracic Surgery. **KENNETH J. PRINTEN, M.D.,** Assistant Professor of Surgery, U. of I. College of Medicine; Diplomate, American Board of Surgery; Fellow, American College of Surgeons. **WM. H. BAKER, M.D.,** Assistant Professor of Surgery, U. of I. College of Medicine; Diplomate, American Board of Surgery. **CHAS. E. HARTFORD, M.D.,** Assistant Professor of Surgery, U. of I. College of Medicine. **ROBT. E. CONDON, M.D.,** See Page 3 for Sketch. **ELISABETH K. ROSS, M.D.,** See Page 3 for Sketch. **ISRAEL PENN, M.D.,** See Page 3 for Sketch. **DAVID BELGUM, PH.D.,** Professor, School of Religion, Associate Professor, College of Medicine & Coordinator, Clinical Pastoral Education, U. of I.; Member, American Psychological Association; Director, School of Lutheran Theology, Chicago. **RUSSELL C. STRIFFLER, M.DIV.,** Director of Chaplaincy & Chaplain Supervisor, St. Luke's Methodist Hospital, Cedar Rapids; Director, Pastoral Care and Counseling Center, Iowa Area, Methodist Church; Fellow, American Association of Pastoral Counselors, Inc., and College of Chaplains, American Protestant Hospital Association. **PAUL FERGUSON, M.D.,** Private Practice; Chairman, IMS Committee on Medicine & Religion; Director, Iowa Medical Service (Blue Shield).

ELECTIVE CREDIT

Attendance at the 1972 Annual Meeting General Sessions is acceptable for eight hours of Elective Credit by the American Academy of Family Physicians.

AMERICAN ACADEMY OF FAMILY PRACTICE

EARLY-BIRD BREAKFASTS

Coffee & Rolls will be available from 8:00 A.M. to 9:00 A.M., Monday & Tuesday, April 24 and 25, in the North Room, Hotel Fort Des Moines.

COURTESY OF BLUE SHIELD

GENERAL SESSIONS

HOTEL FORT DES MOINES
STATE BALLROOM—MEZZANINE

TUESDAY, APRIL 25, 1972

8:00 A.M.—EXHIBITS/EARLY BIRD BREAKFAST

8:15 A.M.—SPECIAL FILM SHOWING

9:00 A.M.—PRESIDENT'S ADDRESS
L. J. O'BRIEN, M.D.
Fort Dodge, Iowa
PRESIDENT, IOWA MEDICAL SOCIETY

9:30 A.M.—MULTIPHASIC SCREENING: CURRENT PERSPECTIVES



DEREK CRAWFORD, M.D.

Dr. Crawford is Physician Supervisor of Multiphasic Screening for Kaiser-Permanente in San Francisco, California. He is an Internist with the Permanente Medical Group and a Member of the Staff of the Kaiser Foundation Hospital. He is a Diplomate of the American Board of Internal Medicine.

10:00 A.M.—RECESS TO VISIT EXHIBITS

10:45 A.M.—GENETIC AMNIOCENTESIS



WM. DROEGEMUELLER, M.D.

Dr. Droegemueller is an Associate Professor of Obstetrics and Gynecology at the University of Colorado School of Medicine in Denver. He is a Diplomate of the American Board of Obstetrics and Gynecology and a member of the Medical Board of the Planned Parenthood of Colorado.

11:15 A.M.—GENETIC COUNSELING IN IOWA



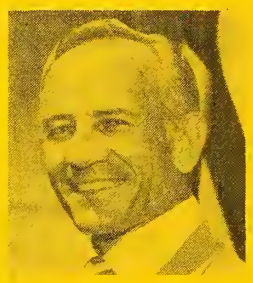
JAMES TAYLOR, M.D.

Dr. Taylor is an Associate Professor of Pediatrics at The U. of I. College of Medicine. A graduate of the Columbia University College of Physicians and Surgeons in New York, Dr. Taylor is a Diplomate of the American Board of Pediatrics. He has been a member of The U. of I. faculty since 1965.

11:45 A.M.—RECESS TO VISIT EXHIBITS

12:00 NOON—ELECTION YEAR REPORT

A Luncheon Meeting



THE HONORABLE JERRY L. PETTIS

United States Congressman Jerry L. Pettis represents the 33rd Congressional District for the State of California. He is a Republican legislator and is a member of the important Ways and Means Committee of the House of Representatives. Congressman Pettis was involved in medical association work prior to his governmental service.

2:00 P.M.—INTRACTABLE ANGINA PECTORIS: A THERAPEUTIC CHALLENGE



HENRY I. RUSSEK, M.D.

Dr. Russek is in the private practice of medicine in Staten Island, New York. He is the Senior Attending Cardiologist at St. Barnabas Hospital in New York City. He is a Diplomate, American Board of Internal Medicine (Cardiovascular Disease); a Trustee of the American College of Cardiology; and a Regent of the American College of Chest Physicians.

2:30 P.M.—NEW ANTIBIOTICS SINCE LAST WEEK



IAN M. SMITH, M.D.

Dr. Smith is Director, Division of Infectious Disease, and Professor of Medicine, U. of I. College of Medicine. He is a Member of the Board of Directors of the Iowa Thoracic Society. He is also a Fellow in the American College of Physicians, and a Member of the Royal College of Pathologists (Board in Pathology), London.

3:00 P.M.—RECESS TO VISIT EXHIBITS

3:45 P.M.—SURGICAL MANAGEMENT OF CORONARY ARTERY DISEASE: PROS & CONS



HENRY I. RUSSEK, M.D.

Dr. Russek is in the private practice of medicine in Staten Island, New York. He is the Senior Attending Cardiologist at St. Barnabas Hospital in New York City. He is a Diplomate, American Board of Internal Medicine (Cardiovascular Disease); a Trustee of the American College of Cardiology; and a Regent of the American College of Chest Physicians.



JAMES E. AUER, M.D.

Dr. Auer limits his private practice in Milwaukee, Wisconsin, to cardiac surgery. He is Chief of Cardiac Surgery at St. Mary's Hospital and Staff Cardiac Surgeon, St. Luke's Hospital. He is an Assistant Clinical Professor of Surgery, The Medical College of Wisconsin and is a Diplomate, American Board of Surgery and National Board of Medical Examniers. He is certified by the Board of Thoracic Surgery.



HOWARD J. ZEFT, M.D.

Dr. Zeft is in private practice (Cardiovascular Consultants, Ltd.) in Milwaukee, Wisconsin. He is Staff Cardiologist at St. Luke's Hospital and Clinical Instructor, The Medical College of Wisconsin. He is a Diplomate, American Board of Internal Medicine and National Board of Medical Examiners. He is certified by the Subspecialty Board of Cardiovascular Disease; he is a Fellow, American Colleges of Physicians and Cardiology and Council on Clinical Cardiology, American Heart Association.

PRESIDENT'S RECEPTION & ANNUAL BANQUET

TUESDAY, APRIL 25

A Reception in Honor of L. J. O'BRIEN, M.D., President, Iowa Medical Society, will be at 6:00 p.m. in the North Room under the Sponsorship of Blue Shield.

* * *

The 1972 Annual Banquet will be in the Grand Ballroom at 7:00 p.m. and will include the Presentation of Awards to Distinguished IMS Members. Popular Columnist Ann Landers will be the Banquet Speaker. Tickets will be sold at the Registration Desk.



PRESIDENTIAL INSTALLATION

WEDNESDAY, APRIL 26

GRAND BALLROOM
HOTEL FORT DES MOINES

K. E. LISTER, M.D., President-Elect, will be installed as President of the Iowa Medical Society immediately following adjournment of the House of Delegates. Dr. Lister is in the private practice of surgery in Ottumwa.

MEDICAL ALUMNI RECEPTION

All Iowa physicians and their wives will be welcome at a reception from 9 p.m. to midnight, Monday, April 24, in the North Room of the Hotel Fort Des Moines. The reception is sponsored by the U. of I. Alumni Association in cooperation with the College of Medicine.

PAST PRESIDENTS' DINNER

The Past Presidents of the Iowa Medical Society will be honored Saturday, April 22, at the Des Moines Club. A Social Hour at 6:30 p.m. will precede the Dinner.

HOUSE OF DELEGATES

OPEN TO ALL MEMBERS

GRAND BALLROOM
HOTEL FORT DES MOINES



L. D. CARAWAY, M.D.
SPEAKER



H. L. SKINNER, M.D.
VICE-SPEAKER

FIRST MEETING—SUNDAY, APRIL 23
9:00 A.M.

SECOND MEETING—WEDNESDAY, APRIL 26
9:00 A.M.



CHAS. A. HOFFMAN, M.D.

Chas. A. Hoffman, M.D., Huntington, West, Va., President-elect of the American Medical Association, will address the House of Delegates during the proceedings Wednesday morning.

SPECIAL MEETINGS & DINNERS

- PAST PRESIDENTS' DINNER
  See Page 7 for Details.
- IMS GOLF TOURNAMENT
  The IMS Golf Tournament will be Sunday, April 23, at Willow Creek Golf Course, 63rd and Army Post Road. Tournament prizes will be awarded at an evening dinner. Please file entries with Harold J. McCoy, M.D., 212 Bankers Trust Building, Des Moines.
- AMERICAN MEDICAL WOMEN'S ASSOCIATION (IOWA BRANCH 19)
  Members of the Iowa Branch should register at the IMS Registration Desk, Hotel Fort Des Moines. Meeting information will be available.
- IOWA ACADEMY OF SURGERY
  The Iowa Academy of Surgery will meet Monday, April 24, at the Des Moines Club. Business Meeting—5 p.m.; Social Hour—6:30 p.m.; Dinner—7:30 p.m. Reserve with Mrs. Sue Hyler, P.O. Box 114, Polk City, Iowa.
- IOWA ASOCIATION OF PATHOLOGISTS
  The Iowa Association of Pathologists will meet Monday, April 24. Business Meeting—5 p.m., Room 340, Hotel Fort Des Moines; Social Hour and Dinner—6:30 p.m., at the Des Moines Club. Reserve with Alexander Ervanian, M.D., Iowa Methodist Hospital, Des Moines.
- IOWA CLINICAL SOCIETY
  The Executive Council of the Iowa Clinical Society will meet Monday, April 24: Social Hour (6 p.m.) and Dinner (7 p.m.) at Johnny & Kay's Hyatt House. Reserve with E. J. Hertko, M.D., 2932 Ingersoll Ave., Des Moines.
- IOWA ORTHOPEDIC SOCIETY
  The Iowa Orthopedic Society will meet Monday, April 24: Social Hour (6:30 p.m.) and Dinner (7:30 p.m.) at the Des Moines Club. Reserve with S. H. Robinow, 1045 Fifth St., Des Moines.
- IOWA PSYCHIATRIC SOCIETY
  The Iowa Psychiatric Society will meet Monday, April 24, at 5 p.m. at the Des Moines Club. Contact Richard Preston, M.D., 1405 Woodland Ave., Des Moines.

TECHNICAL EXHIBITS

You are urged to visit the Annual Meeting Exhibits at the various scheduled times. The presence of these Exhibitors does much to assure a successful meeting.

MONDAY & TUESDAY, APRIL 24 & 25—8:00 A.M. to 5:00 P.M.—MEZZANINE
HOTEL FORT DES MOINES

TECHNICAL EXHIBITORS

Acousticon Woodard Company
Des Moines, Iowa

Blue Shield
Des Moines, Iowa

Bristol Laboratories
Syracuse, New York

Casualty Indemnity Exchange
Denver, Colorado

Dictaphone Corporation
Des Moines, Iowa

Eaton Laboratories
Norwich, New York

Encyclopaedia Britannica, Inc.
Chicago, Illinois

Learning Systems, Inc.
St. Louis, Missouri

Eli Lilly and Company
Indianapolis, Indiana

Mead Johnson Laboratories, Inc.
Evansville, Indiana

The Medical Protective Company
Fort Wayne, Indiana

Physicians and Hospitals Supply Company
Minneapolis, Minnesota

Postal Investment Company, Inc.
Alleman, Iowa

The Prouty Company
Des Moines, Iowa

Sandoz Pharmaceuticals
Hanover, New Jersey

Schering Laboratories
Kenilworth, New Jersey

G. D. Searle & Company
Chicago, Illinois

Sutton Gallery
Fort Dodge, Iowa

Ulmer Pharmacal Company
Minneapolis, Minnesota

Zimmer-Dunwiddie Associates
Des Moines, Iowa

(Continued from page 130)

lithiasis and alcoholism is high. Paloyan reported 26 patients with calcific pancreatitis, 20 of which (77%) were chronic alcoholics.[6] Three (11%) had biliary tract disease, two had duodenal ulcer, and one was free of any known related problems. Of the 15 patients with calcific pancreatitis in this series, 9 (60%) had associated alcoholism, 3 (20%) had associated biliary tract disease, and 3 (20%) had neither.

As more procedures are performed directly on the pancreas, the results of surgical treatment of chronic pancreatitis have improved, as this group of patients illustrates. Satisfactory results were obtained in two-thirds of those patients whose operation involved a direct attack on the pancreas. Indirect procedures produced a satisfactory result in only one-fourth of the patients operated upon.

A satisfactory result from surgery for chronic pancreatitis does not imply improved endocrine or exocrine function. Most of these patients are deficient in one or both pancreatic functions. In fact, many pre-diabetics with abnormal glucose tolerance curves are frankly diabetic after surgery, especially following pancreatic resection. These patients gain weight because they are able to eat without fear of inducing abdominal pain. The decreased exocrine pancreatic function may require supplementary oral enzymes.

When considering operative treatment for these patients, the surgeon should be prepared to adapt the operation to each patient's problem. The type of procedure to be employed will depend on the clinical and operative findings, in conjunction with the pancreatogram. Concurrent biliary tract disease should be corrected. An operative pancreatogram[8] should be obtained. The duodenum is opened and a trans-ampullary, retrograde pancreatogram is performed to determine the patency and size of the duct of Wirsung (Figure 1). If the pancreatogram shows the duct of Wirsung to be near normal size with stricture at the ampulla of Vater only, and the development of chronic pancreatitis is early, section of the sphincter of Oddi[9] may be considered. Occasionally sphincterotomy may be utilized with success for early chronic pancreatitis, however, it should not be used alone in the presence of significant destruction of the gland.



Figure 1. Trans-ampullary pancreatogram outlining the duct of Wirsung with multiple strictures.

Sometimes the duct in the head of the pancreas strictures preventing retrograde pancreatography. If the pancreatic duct is palpable because of distention, one can attempt to visualize it by inserting a needle directly in the duct and injecting radiopaque solution. More commonly, the surgeon resects the tail of the pancreas and catheterizes the main duct in a retrograde fashion (Figure 2).

If the pancreatogram reveals the duct strictured in the head of the gland and patent through the body and tail, then retrograde duct drainage may be used. Implantation of the tail of the gland into a Roux-en-Y loop of jejunum provides retrograde drainage. If the pancreatogram shows multiple areas of obstruction throughout the gland (Figure 2), then the main duct can be opened for its entire length on the anterior surface of the gland and a loop of jejunum anastomosed to the duct. This is the method of Peustow and Gillesby.[10] Drainage of the pancreatic duct, by any method, should be utilized in patients who have significant pancreatic functional reserve in hopes of preserving that function.

More and more surgeons are turning to



Figure 2. Retrograde pancreatogram with the cannula in the tail of the pancreas outlining the duct of Wirsung with multiple strictures. Dye enters the duodenum and outlines the biliary tree. Pancreatic calculi are seen throughout the head of the gland.

pancreatic resection for chronic pancreatitis.[1, 2] The patients who come to resection usually have a destroyed duct system and/or are insulin dependent diabetics. Occasionally the disease may be restricted to a portion of the body and tail, and the head of the gland is intact. In these cases, resection of the involved distal pancreas without retrograde jejunal drainage may be curative. Pancreatoduodenectomy is utilized for disease localized to the head of the gland.[1] This procedure should be performed only by surgeons having extensive experience with pancreatic surgery, since the normal sized common duct requires exacting anastomotic techniques. Ninety-five per cent distal pancreatectomy has been utilized with success by Fry and Child.[2] The entire pancreas is resected except for a small rim next to the duodenum, estimated at 5% of the gland. The authors report excellent results after this operation. In preserving this amount of pancreas, the blood supply, common to it and the duodenum, remains intact. With severe pancreatic involvement, other surgeons have resorted to total pancreatectomy. In our experience, the diabetes that results from total pancreatectomy is difficult to manage.

Pseudocysts frequently arise during the development of chronic pancreatitis. Persistent pain, abdominal tenderness and a palpable mass are characteristic. There is often a persistent elevation of the serum and urine amylase associated with pancreatic pseudocysts.

Operation in the early phase of pseudocyst development is seldom warranted because the cyst wall lacks sufficient thickness and maturity suitable for suturing. The surgeon who finds these thin-walled cysts should drain them to the outside with sump suction. A second operation is occasionally required to close the resultant pancreatic fistula.

If the cyst wall is closely apposed to the posterior gastric wall, a cystgastrostomy is the procedure of choice. This involves making an opening into the cyst through the back wall of the stomach and oversewing the edges of the opening to control bleeding. If the cyst location prevents cystgastrostomy, a Roux-en-Y loop of jejunum anastomosed to the cyst provides an effective substitute.

Operations designed to interrupt efferent nerves from the pancreas have met with poor results. Splanchnic neurectomy, celiac ganglionectomy and thoracolumbar sympathectomy have been employed. These operations were designed to correct the pain of chronic pancreatitis, but do nothing to correct the cause and the disease process continues.

No one operation can satisfy every need when operating on patients with chronic pancreatitis. The type of operation chosen will depend on:

1) the stage of the disease process, anatomically and pathologically.

2) the degree of loss of endocrine and exocrine function.

3) the results of the pancreatogram.

4) the number and types of operations done previously.

In general, we believe patients with chronic pancreatitis who are not insulin and/or exocrine enzyme dependent should have a form of drainage procedure before one undertakes a major resection of the pancreas. Patients with evidence of endocrine and exocrine pancreatic insufficiency have a physiologic pancreatectomy and will best be managed by pancreatic resection.

SUMMARY

1. Surgical intervention in chronic pancreatitis is reserved for patients with intractable pain and pancreatic abscess or pseudocyst.

2. Surgical procedures for chronic pancreatitis that deal directly with the pancreas result in a higher rate of satisfactory results than indirect procedures.

3. There is no one operation which is applicable to all forms and stages of chronic pancreatitis; one must utilize the procedure which best fits the pathologic, anatomic and functional condition of each patient.

REFERENCES

The references noted in this article are available on request from either the authors or the JOURNAL OF THE IOWA MEDICAL SOCIETY.

Cigarette Smoking And Physician-Patient Interaction

GERALD E. KLONGLAN
RICHARD D. WARREN
JUDY M. WINKELPLECK
Ames

DURING THE PAST FEW YEARS, doctors have been faced increasingly with the problem of deciding how they should confront the cigarette smoking issue when interacting with a patient who smokes. Research studies have found the influence of physicians is potent in altering the smoking behavior of patients.[1] Through the personalized physician-patient relationship[2] the medical profession has the opportunity to contribute to public health by discouraging smoking.[3] Many persons are in contact with a physician at least once a year and thus have the occasion to discuss good health practices. In addition to educating patients about the "facts" of cigarette smoking, the physician can also be an exemplar to his patients. Most of us are familiar with the phrase "100,000 Doctors Have Quit Smoking—Maybe They Know Something You Don't."

The work upon which this article is based was performed under Contract No. PH 86-68-129 with the National Clearinghouse for Smoking and Health, Public Health Service, within the Department of Sociology and Anthropology, Iowa State University, Ames, Iowa. For information concerning the reports published from the study, contact Dr. Gerald E. Klonglan, Associate Professor, Department of Sociology and Anthropology, Iowa State University, 103 East Hall, Ames, Iowa 50010. Journal Paper No. J-7180 of the Iowa Agriculture and Home Economics Experiment Station, Ames, Iowa, Project No. 1703.

A study recently completed by the Department of Sociology at Iowa State University provides data as to the general public's impression of the physician in the role of exemplar. The study also sought to ascertain the quantity and the accuracy of the cigarette smoking information held by the general public. The study was conducted in an effort to determine how much further public education needs to be provided by physicians and others. Data were collected from a random sample of 375 male and female adults in 14 Iowa counties.

Approximately one-third of the respondents were then engaged in smoking cigarettes. In this smoker group, those who had tried to stop smoking were twice as plentiful as those who had never attempted to give up cigarettes. Approximately half of the sample had not engaged in cigarette smoking and one-fifth of the respondents had stopped smoking cigarettes.[4] Thus, approximately two-thirds of the sample were non-smokers.

It is apparent that a portion of the general public is concerned about smoking and its relationship to health. These individuals have stopped or are considering stopping smoking. Other persons are apparently unconcerned about the harmful effects of smoking or are unable or unwilling to stop smoking. These persons are the immediate concern of the physician because of the health threat of cigarette smoking.

The respondents were asked questions to

help determine how they evaluate the seriousness of the cigarette smoking issue. They were asked about the degree of attention which cigarette smoking deserves to be given. Eighty-five per cent of the sample felt that cigarette smoking needed *immediate* attention. Nonsmokers consistently expressed the attitude that cigarette smoking needed *much immediate* attention while smokers were more likely to feel that this issue only needed *some immediate* attention. Also, smokers were much less frequently concerned than nonsmokers about the effects of cigarette smoking on health.[4] These data tend to support the general belief that smokers are less concerned about the effects of cigarette smoking than are non-smokers. Research has not provided conclusive evidence that the apparent lack of concern by the smoker is indicative of his true feelings. In fact, the expressions of unconcerned smokers may represent an attitudinally defensive position because they have not yet been able to stop smoking cigarettes and they do not want to create dissonance within themselves by expressing attitudes inconsistent with their own behavior. Some persons have been able to stop smoking after finally realizing that cigarette smoking is bad for their health. Other persons have stopped smoking after having been made aware of the harmful effects of cigarettes.

The influence of others has much bearing on the decision to smoke. For example, respondents were asked if parents, teachers, people in the health professions, and, specifically, doctors should set good examples and abstain from smoking cigarettes. Between 85 and 90 per cent of the sample declared that such persons should act as exemplars and should not smoke cigarettes. In line with the previously noted findings, the smokers were less likely than non-smokers to feel that these persons should set an example. Additionally, three-fourths of the respondents felt that individual doctors should be actively involved in making speeches to the public about the harmfulness of cigarette smoking.[4] The data consistently indicate that the general public views doctors not only as non-smoking exemplars, but also as educators in terms of conveying information as to the harmful nature of cigarette smoking. Evidence can be cited (from studies other than the present one) to show that individuals who are told by their physicians that smoking is harmful, stop smoking at a greater rate than individuals whose physicians take no stand.[5]

Other questions in the study provide clues as to the kinds of information physicians can provide their patients. For example, it has been established that filters do not reduce the health risk in cigarette smoking.[6] However, 40 per cent of the Iowa respondents said that filters do reduce the health risk. A higher percentage of smokers than non-smokers gave an incorrect response to this question.[4]

One-fifth of the respondents said that cigarettes are harmless if not inhaled.[4] It has been supported, of course, that cigarettes are harmful even if not inhaled.[7] One-tenth of the sample stated that mentholated cigarettes are safer than non-mentholated cigarettes.[4] However, the tar and nicotine ratings of mentholated cigarettes are generally no less than for non-mentholated cigarettes.[6]

Other findings that physicians might want to be aware of in discussing cigarette smoking with patients include the relationship of smoking to heart disease, as well as the effects of cigar and pipe smoking. Approximately one-fifth of the sample felt that cigarette smokers are no more likely to die from heart disease than non-smokers.[4] Medical research has determined otherwise.[8] Research has also found the effects on health of cigar and pipe smoking are different from those of cigarette smoking.[7] However, 54 per cent of the respondents were not aware of this fact.[4]

At least 10 per cent, and sometimes up to 40 per cent of the sample, had inaccurate information on these and other facts related to cigarette smoking. Those respondents for whom these facts are most crucial, the current smokers, had incorrect information more frequently than did the non-smokers. Physicians are in a special position of being able to present factual data to their patients, especially to those who smoke cigarettes. The unemotional presentation of such information on the medical, biological and chemical effects of smoking on health has thus far proved to be the most effective approach to inducing attitudinal changes about cigarette smoking.[9]

In conclusion, it is emphasized that 85 per cent of the sample viewed doctors as exem-

plars, those who should set an example by not smoking cigarettes. Also, three-fourths of the respondents felt that doctors should participate in public education programs on the harmful aspects of cigarette smoking. A sizable proportion of the study respondents were not correctly informed about the harmful nature of cigarettes and apparently want and expect physicians to become involved in the issue. Physicians have the opportunity, because of their contacts with large numbers of concerned patients, to act both as exemplars and educators in dealing with the issue of cigarette smoking and health.

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The references noted in this article are available on request from either the authors or the JOURNAL OF THE IOWA MEDICAL SOCIETY.

I REMEMBER WHEN—DO YOU?

The award was presented for the "Greatest Contribution to Medicine?" It happened just yesterday and was awarded to *The Patient.*

From a long record we need to extract only a couple of his experiences to understand his worthiness!

In the condition of hernia it is notable not only what he endured, but for how long—*1,800 years.*

In the beginning, after the sac had been ligated and cut away he could have his choice of letting the wound granulate in slowly or speed it up by searing with a hot iron.

Seven hundred years later the area of hernia was outlined in a triangle with black ink; the hernia reduced; and the inked area burned with a triangular iron. The surgeon was careful to "burn down to the fat"—and on the lean patient probably used his No. 1 iron.

Conservative operators reduced the hernia and pressed the scrotum for several weeks between two blocks of wood.

In the early 19th century plugging the canal with skin was popular. Dr. Walzer of Bonn invaginated the skin by a wooden cylinder with a needle and suture in its end. The needle was worked through the abdominal wall and the cylinder secured. A cover was placed over the outside of the canal and screwed into the cylinder.

This pressure-cooker was left in place for a week.[1]

Thousands of gentle people have qualified for the degree of *Medical Hero,* but if a statue should be erected in their honor its figurehead should resemble an English boy of 1841 and it should bear his famous words.

At that time a number of surgeons believed they could cure stammering by cutting the chin-to-tongue muscles. On March 1, 1841, Dr. August Frantz, in London, operated on 17-year-old George Read in the Read home. A wedge shaped piece was cut out of the dorsum of the tongue. "The patient bore this severe operation well, but became faint at the close."

Then, to the gratification of his surgeon—and with *The Patient's* noble resignation to things-as-they-are, the boy "pronounced words with facility and distinction . . . which previous to the operation he had been unable to articulate."

He said, "There is blood running down my shirt."[2]—G. E. Morrissey, *Member, IMS Historical Committee*

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VISIT YOUR EXHIBITS

at

1972 IMS ANNUAL MEETING

Mezzanine Floor—Hotel Fort Des Moines

MONDAY, April 24

8:00 a.m.—5:00 p.m.

TUESDAY, April 25

8:00 a.m.—5:00 p.m.

Editorials

M. E. ALBERTS, M.D., Scientific Editor

POLITICAL POLLUTION

Caucuses have been held here in Iowa in recent weeks to begin the process of choosing candidates for the upcoming presidential elections. Various contenders have made forays into the State to offer their solutions to the State of the Union, to relate their dissatisfaction with present events and to make broad generalizations on their ability to save us all from possible doom. Their comments border on the hilarious at times. They make glossy statements about their general worth and they deplore their opponents. If a certain specific legislative act has been instituted by their party it is great—if the same action were taken by the opposition it would constitute a horrible injustice and spell trouble for the nation.

What would it be like if the professions made pronouncements similar to the politicians? If physicians made such grandiose statements about their skills it would constitute unethical behavior. Yet the politicians continue to extol their greatness and advance their sure cures for the ailments of the nation.

Men and women in the political arena should realize there are many of us run-of-the-mill citizens who are intelligent enough to comprehend the issues. When various pronouncements are made, and presented by the news media (either in or out of context), there should be opportunity for the common man to see the true picture. In the far extremes of political thought there are those who believe negativism or extreme action should be used to solve every social, economic and political enigma. Medicine bears some similarity.

Now there are many physicians who are involved in politics, as rightly they should be. Let them consider their political challenges in the same manner as they would the welfare of their patients; not with wild schemes, tongue-in-cheek promises, or unwarranted castigating broad statements or insinuating innuendoes about the competition—as is common in the political arena. It is important that our ration of political grain have the chaff removed before we ingest same. Pollution exists in politics too.—M.E.A.

SOMETHING NEW FOR THE LADIES

No, the ladies of our medical auxiliary have not been shut out of our lives or our state medical journal. You may note this issue of the JOURNAL is lacking those several pages usually devoted to news of the Woman's Auxiliary. We suspicion that the JOURNAL only infrequently reached the ladies so they could peruse this section. To partially overcome this problem, reprints of the section have been mailed directly to members of the Auxiliary.

We feel, however, they deserve something better. Therefore, with the approval of the Auxiliary officers and the IMS Board of Trustees, a hopefully more appropriate private newsletter will be prepared in the Society offices and mailed directly to the Auxiliary members. This new newsletter will be more attractive, more feminine, and strictly for the gals. We hope you are not disappointed, doctor; maybe a bribe with some roses or violets out of season will persuade your spouse to let you peek at her newsletter.—M.E.A.

INTERFERON

After gazing into the medical crystal ball of promising vistas for the future in medicine, one is struck by the fact that perhaps one of the most important and promising fields of medical endeavor in the next 10 years may very likely be the battle against viruses. We know that viruses cannot only produce short-term illnesses, with death on rare occasions, but the medical theorists are now proposing other diseases in which viruses may play an important part. For example, the term "slow virus" has been proposed to point up a theory which in effect says that an infection with a virus may smolder and light up a disease 10 or 20 years afterward. These diseases may be as widely diversified as lymphatic leukemia, Hodgkin's Disease, certain forms of lung cancer and multiple sclerosis. Direct long-term effects may also produce diseases as "chronic active hepatitis" and pulmonary scarring with attendant emphysema and pulmonary fibrosis. Because the horizons of medical virology are widening at such a rapid rate, it is attendant upon every physician to alert himself to the new terminology and ideas which are springing up.

So far, the only antiviral drug on the market is Amantadine hydrochloride (Symmetrel®). This drug actively prevents the multiplication of the virus of influenza in the cell itself. A "new" agent called Interferon* is "waiting in the wings" in readiness to take its place in the prevention of miscellaneous other viral diseases. There is some hint also that Interferon may produce depressive effects of non-viral infectious agents.

Interferon, or more correctly, the Interferons, were discovered by Isaacs and Lindemann in 1957. Since then a tremendous body of esoteric investigative work has been done about the many multi-faceted problems concerning the Interferon response. In order to understand these articles, one must acquaint himself with an entire new vocabulary of terms and meanings. Older terms such as ribosome RNA (rRNA), transfer RNA (tRNA) or messenger RNA (mRNA) are terms which we should already have become familiar with in cell metabolism. Another term which may not be familiar to some of us is "genome" which is a term descriptive of the complete set of hereditary factors as contained in the haploid assortment of chromosomes. Another term which we may not be familiar with is a Virion. A Virion is a complete viral particle.

In brief, many articles and several volumes have been written about the action of the Interferons. Interferons are usually described as cell-derived proteins sharing certain common physical-chemical properties and characterized principally by their ability to render competent cells resistant to viral infections. The definition may have to be modified to include certain described effects of the Interferon on tumor growth and multiplication of infectious agents other than viruses. In order for the Interferons to inhibit viral multiplication in the cell one must subject the cell of the host to Interferon administration *before* the viral agent attacks the host cell, although in some slow-growing viruses, such as the Rabies virus, Interferon may be given to establish an antiviral state in an *already infected* cell. The period in which cells remain protected by Interferon can vary considerably. The Interferons induce a state of resistance to virus growth. They may do so by adhering to the cell surface or by getting into the cell itself. The response of cells to Interferon appears to be a graded one ranging from complete depression of infection to a diminished yield of virus per cell. The necessity for Interferon binding to cells for a development of anti-virus activity is clearly established. Following binding of the cells—that is on the external surfaces—no detailed information is available on the steps required. There can, however, be little doubt that host cell RNA synthesis in the cell is required for the development of resistance in response to Interferon. Evidence so far suggests that the rRNA is apparently not involved to any great extent, but that the synthesis of the new mRNA is formed which directs in turn the synthesis of a protein possessing anti-viral activities. Others think that Interferon acts as an anti-viral substance by altering RNA synthesis in the virus particle itself. The interpretation that Interferon acts

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* Freedman, Robert M., and Sonnabend, Joseph A.: Mechanism of action of Interferon. ARCH. INTERN. MED., 126:51-61, July, 1970. (The entire July 1970 JOURNAL OF THE ARCHIVES OF INTERNAL MEDICINE is devoted to the problems of Interferon and is recommended reading.)

as a derepressor (here is another word for you to look up) remains an attractive one. The central problem then in understanding the action of Interferon is how it interferes with viral protein synthesis and yet does not seem to affect host protein synthesis. No definite answer is possible at present. However, it has been suggested that the ribosome in the virus is the most likely site of action. Another possible site of Interferon action is the tRNA. Since multiple forms of tRNA exist for amino acids, certain tRNA forms may be more essential for a viral as oppossed to cellular protein synthesis.

"Interferon does not directly inactivate virus particles but acts by blocking an intercellular process involved in virus replication, probably by inhibiting virus directed protein synthesis. On the other hand, Interferon-treated cells probably develop resistance to viruses through an active process, not simply as a consequence of Interferon binding or subsequent entry into the cell. The mechanism of action of Interferon therefore involves two distinct problems. First, in the Interferon-treated cell what changes take place which lead to the development of virus growth? Second, in what ways are events in the virus growth cell modified in the Interferon-treated cell?"—D. A. GLOMSET, M.D.

LETTERS TO THE EDITOR

Dear Editor:

Our Marion County Medical Society recently passed a resolution asking for a speaker on our malpractice problem, at our annual meeting this Spring, who would give the views of what the doctors want, instead of what the lawyers want, as has been the policy of the AMA and state administrators.

I think that most doctors believe that the contingent fee arrangement is the basic cause of our trouble. If that is true, why shouldn't we attack this and eliminate its effectiveness, rather than trying to treat the effects of it, as we have been doing and accomplishing practically nothing?

Then, we have this two million dollar boondoggling commission appointed by Sec. Richardson of HEW, who himself is a lawyer and whose boss, President Nixon, is a lawyer. This commission is heavily weighted with lawyers, with only three real physicians on it. They are holding meetings all over the country, having a good time, at the taxpayers expense, presumedly to find out what our malpractice problem is, which the doctors already know and so do the lawyers. This is just a brainwashing excursion to deceive the doctors and the public.

The fact that the AMA will do nothing to solve our malpractice dilemma, except treating the effect of our contingent fee system, instead of attacking the etiology of it, certainly is a dominant reason why so many physicians make the statement that the AMA is not doing anything for them and therefore drop their membership.

What we should do is to call a special meeting of doctors only and leave the lawyers out, to solve our malpractice problem, so that we will attack the etiology of our problem rather than treat the effects of it, as we have been brainwashed to do by the lawyers.

PETER VAN ZANTE, M.D.
Pella

Editor's Note: Carl A. Hoffman, M.D., will discuss medical malpractice before the IMS House of Delegates in April. Dr. Hoffman is a member of the President's Commission on Professional Liability and is president-elect of the American Medical Association.

Dear Editor:

I would like for you to run the following in the section of your Journal: Letters-to-the-Editor. Hopefully physicians will respond to this.

I am editing a book on the role of faith or religion in healing from a physician's standpoint. Any physician interested in contributing to this book, please write to the following address:

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Medical Assistants

by TENORA MEYER

"Five Senses of Potpourri In the City of Five Seasons"

Surely our senses will be aroused by this intriguing theme for the 1972 state convention of Medical Assistants to be held in Cedar Rapids, May 19, 20 and 21. The convention will open at noon Friday, May 19, with specialty workshops in the afternoon on psychiatry, cardiovascular care, orthopedics and urology. A tour of the Atomic Energy plant at Palo is planned. More details will be released later. The convention is open to nonmembers as well as members of AAMA.

OUR NEW PILOTS

The newly elected presidents of component chapters in Iowa are:

Black Hawk County (Waterloo): Miss Judine Matthiesen, Office of Dr. Ross Randall

Council Bluffs: Mrs. Ina Stancliffe, Office of Dr. M. Margules

Des Moines: Miss Diane Day, Offices of Drs. Dubansky, Flapan and Robinow

Linn County (Cedar Rapids): Mrs. Sally Mead, Offices of Drs. Kanealy and Stark

Mason City: Mrs. Frances Jenkins, Independent Medical-Surgical Group

Scott County (Davenport): Mrs. Jean Gold, Urological Associates

Woodbury County (Sioux City): Mrs. Dalia O'Connor, Office of Dr. Andrew Engelmann

CHANGES IN CMA EXAM

One of the most important changes in the 1972 examination for AAMA certification is the actual construction of the test. Questions will be geared more toward the practical application of knowledge rather than textbook learning. Major revisions in the 1972 examinations have also made it possible to shorten the testing time to one day —the fourth Friday in June. Candidates in 1971 were given a complete evaluation of their scores via computer printout. Successful candidates have expressed gratification in knowing their standings. Similarly, those who did not quite measure up to standards have appreciated knowing their weaknesses for future study purposes.

An example of the type of question included in the examination this year is: (Content: Anatomy and Physiology, practical application—Clinical Division): The physician asks the medical assistant to prepare a patient for examination of a cyst of the Bartholin gland. In order to properly prepare and drape the patient, the medical assistant would ask her to:

A. Remove her clothing from the waist up.

B. Unbutton her blouse and expose the neck region.

C. Remove her undergarments from the waist down and lie on her right side.

D. Remove her undergarments from the waist down and lie with her feet in the stirrups.

E. Remove her undergarments from the waist down and lie on her abdomen exposing her buttocks.

MEMORY AIDS

We can all use some "crutches for our memory" from time to time; they are especially helpful when trying to remember facts for specific examinations. Memory artifices can be justified in that they offer a somewhat illogical method for remembering an illogical fact.

For instance, do you have trouble with principal and principle? The schoolboy who knows his leader at school is a *pal* (princi*pal*), not a principle, will have no difficulty with these words.

The paper you write letters on is not stationary but stationery. Associate it with another synonymous word, *paper*. Both, of course, end in *er*. The word "calendar" is misspelled oftentimes. Remember that calendar is synonymous with the word "year" and both end in *ar*.

Effect and affect are puzzling to many of us. *E*ffect is to *e*nd as *a*ffect is to *a*ct. The farther vs. further issue may be troublesome. *Far*ther is to distance as *fur*ther is to an abstraction (fuzzy, that is).

There are jingles for remembering such as "Thirty days hath September, April, June and November," etc. This jingle has been effective in remembering the cranial nerves: "On Old Olympus' Torrid Top—A Finn And German Picked Some Hops"—Olfactory, Optic, Oculomotor, Trochlear, Trigeminal, Abducens, Facial, Auditory, Glossopharyngeal, Pneumogastric, Spinal, Hypoglossal.

This page is prepared for and by the Iowa Chapter, American Association of Medical Assistants. Material is compiled by Mrs. Tenora Meyer.

IOWA MEDICAL MISCELLANY

(Continued from page 111)

ture in the February 2 issue of THE LUTHERAN, a denominational magazine. Pictured on the cover, Dr. Dunlevy is characterized as an independent and forceful man; this assessment is based on his advocacy of a statement dealing with abortion.

GOVERNOR APPOINTS . . . Arthur Downing, M.D., Des Moines, has been named by Governor Ray to the Emergency Medical Services Advisory Council for the State of Iowa. This Council will be available to assist various agencies which are developing emergency medical services programs. Dr. Downing is chairman of the IMS Subcommittee on Safe Transportation.

SPORTS CONFERENCE . . . Interested Iowa physicians are invited to attend a March 30 Conference on Medical Aspects of Sports. Conference is a project of the Iowa Medical Society Committee on Sports Medicine and the Iowa High School Athletic Association. For coaches, trainers, physicians, etc., the Conference will be at the Iowa Methodist Hospital in Des Moines.

DELEGATES HANDBOOK . . . Scheduled for distribution this month is the 1972 HANDBOOK FOR THE IMS HOUSE OF DELEGATES. It will be sent to those Iowa physicians who are to serve as delegates at the forthcoming Annual Meeting. The HANDBOOK contains reports of Society committees, resolutions received from county societies and other information.

FEBRUARY SURVEY . . . Iowa physician interest in a MAST program is being measured in a February survey sent to all IMS members. MAST is the abbreviation for Medical Accessibility System Via Telephone and is represented as a means by which practicing physicians may contact The U. of I. College of Medicine to consult directly with specialists. The program will be implemented only if there is a broad base of physician interest.

REGIONAL MEDICAL PROGRAMS . . . New emphasis of the Iowa Regional Medical Program (IRMP) will be on health care delivery systems. So said Kenneth Barrows, chairman of the Iowa Regional Advisory Group, in recent remarks to the IMS Executive Council. Barrows and IRMP staff member Charles Caldwell briefed the Council on the Program's activities and urged close contact between IMS IRMP.

JOINS FIELD STAFF . . . Chester (Chet) Helland of Cedar Rapids has joined the IMS-Blue Shield field staff as a physician relations representative and will work out of Cedar Rapids.

DRUG ABUSE ITEM . . . The IMS Executive Council received a January report from the Committee on Drug Abuse which called on physicians to limit their prescribing of amphetamines. The Council received the report and referred it to the House of Delegates.

CONTINUING EDUCATION . . . In sustaining recommendations of the Committee on Medical Education and Hospitals, the IMS Executive Council recently (1) rejected mandatory participation in continuing medical education as a requirement for Society membership, (2) urged physician participation in voluntary CME programs, and (3) authorized development of a program wherein the IMS would approve CME programs sponsored by various institutions and organizations in the State.

MEDICAL MALPRACTICE . . . The Medico-Legal Committee has been urged by the Executive Council to proceed with its investigation of a Society-sponsored program in the professional liability field.

APPOINTMENTS . . . John E. Tyrrell, M.D., Manchester, has been appointed to the Blue Shield Board of Directors to succeed C. V. Edwards, Sr., M.D., Council Bluffs. Edwin A. Motto, M.D., Davenport, has been named as an IMS representative to the Blue Cross Board of Directors, replacing Dr. Edwards in that capacity.

NEW FACILITY . . . A new $600,000 Doctors Building is now housing 18 Council Bluffs physicians. The new facility provides easy access to Jennie Edmundson Hospital.

ACADEMY TRAVELS . . . 140 physicians and family members from the Iowa Chapter, American Academy of Family Physicians, left for a week in Spain February 19. The trip included medical seminars and field trips to hospital facilities in Spain.

TURNED DOWN . . . The Health Planning Council of Central Iowa turned down in February a request from the Des Moines College of Osteopathic Medicine and Surgery to approve a $4 million fund-raising drive.

WHODUNIT STARTS NEXT MONTH . . . A radiologic feature will start in the April issue of the JOURNAL. A case will be noted each month with films and readers will have the opportunity to make a diagnosis.

FAMILY PRACTICE . . . Now in operation is the Oakdale Family Practice Office of The U. of I. College of Medicine's Department of Family Practice. The program's purpose is to render high quality patient care and to prepare physicians for the specialty of Family Practice. Persons residing in an eight-township area of Johnson County are being served.

About IOWA Physicians

Dr. Mark Pabst has been elected chief of medical staff at Davis County Hospital. **Dr. James Mincks** has been chosen vice president, and **Dr. Edwin Gilfillan,** secretary-treasurer. All are Bloomfield physicians.

Dr. L. F. Frink, of Spencer, was a program participant at a recent Alcoholism and Drug Abuse Workshop in Emmetsburg. The program was sponsored by the Northwest Iowa Alcohol and Drug Treatment Unit of Spencer.

Dr. Richard Young, of Clarion, has been elected president of the Clarion Development Commission. Dr. Young is also a recent recipient of the Clarion Jaycee Outstanding Boss of the Year award.

Dr. J. T. May, superintendent of the Mental Health Institute at Cherokee, has been named acting director of the State Department of Social Services Bureau of Mental Health.

At a recent meeting of the Jefferson County Medical Society, the following Fairfield physicians were elected to offices—**Dr. C. F. Watson,** president; **Dr. Gene Egli,** vice president, and **Dr. Terry Sutton,** secretary.

Dr. Nelson L. Hersey, of Independence, a radiologist at People's Memorial Hospital for 39 years has retired from that position. A 38-year member of the Iowa Radiological Society, Dr. Hersey will continue his private practice of medicine in the community following a winter vacation.

Dr. Clarence H. Denser, Jr., a Des Moines pathologist, has been reappointed by the AMA Board of Trustees to the AMA Committee on Quackery. Other members of the Committee are: **H. Thomas Ballantine,** Boston, Massachusetts; **Henry I. Fineberg,** New York, New York; **Joseph A. Sabatier, Jr.,** New Orleans, Louisiana; and **David B. Stevens,** Lexington, Kentucky.

Dr. Roy Hutchinson, a Fort Dodge physician, received the Master Angler Award at the Islamorada, Florida, Fishing Tournament for the third year in a row.

Dr. John K. MacGregor, of Mason City, is serving a two-month volunteer tour with Project HOPE in Ganado, Arizona. Dr. MacGregor is treating patients at HOPE's Sage Memorial Hospital as part of the project's concept of establishing an effective system of health care delivery while providing training opportunities for the Navajos. Dr. MacGregor also served aboard the S.S. HOPE during its mission to Nicaragua.

Dr. Walter Fox, superintendent of the Mental Health Institute at Mt. Pleasant, has resigned this position to become assistant commissioner in charge of mental health for the Arizona Department of Health.

Dr. H. B. Weinberg, coordinator of the Iowa Regional Medical Program, has resigned his IRMP post to become director of medical education at Memorial Hospital in Hollywood, Florida. Prior to becoming co-ordinator of IRMP, Dr. Weinberg was in private practice for 30 years as a cardiologist in Davenport.

Dr. R. A. Simpson, of Iowa City, has been re-elected president of the Mercy Hospital medical staff. Other Iowa City physicians re-elected were **Dr. George S. Anderson,** vice-president; and **Dr. Kenneth J. Judiesch,** secretary-treasurer.

Dr. Gary P. Hayes, formerly of the Eldora Medical Center, has opened an office for the private practice of medicine in Cedar Rapids. A 1964 graduate of The U. of I. College of Medicine, Dr. Hayes joined the Eldora Medical Center in 1965.

Dr. Harry V. Robison, of Sioux City, and **Dr. Stephen S. Jewett,** of Centerville, have been certified diplomates of the American Board of Family Practice.

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Dr. Donald J. Soll, of Denison, has been elected president of the Crawford County Medical Society. Dr. Soll succeeds **Dr. M. U. Broers,** of Schleswig, who will serve as secretary-treasurer. **Dr. R. A. Huber,** of Charter Oak, was elected vice-president.

Dr. Harold Moessner, of Amana, has been named clinical assistant professor in the Department of Family Practice at The U. of I. College of Medicine.

Dr. and Mrs. George Atkinson, of Oskaloosa, have returned from Panama City, R. P., where he attended the 4th International College of Surgeons' Western Hemisphere Congress and the Congress of the United States section. Dr. Atkinson received his fellowship in ophthalmology in ceremonies at the University of Panama.

Dr. Adrian E. Flatt, professor of orthopedics at The U. of I. College of Medicine, has been named winner of a 1972 Kappa Delta Award, the highest scientific honor bestowed by the American Academy of Orthopaedic Surgeons. A specialist in surgery of the hand, Dr. Flatt's award-winning paper on "Problems in the Treatment of Ulnar Drift" is based on 15 years of clinical and laboratory research on the surgical rehabilitation of the rheumatoid hand. Two other professors in The U. of I. Department of Orthopedics have also received the award, **Dr. Ignacio V. Ponseti** in 1956 and **Dr. Reginald R. Cooper** in 1971.

Dr. Eliza Pineda, of Burlington, has been appointed medical director of the Henry County Mental Health Center in Mt. Pleasant.

At a recent meeting of the Iowa Clinical Surgical Society at University Hospitals in Iowa City, the host doctors presenting the operative and clinical programs were—**Dr. S. E. Ziffren, Dr. R. H. Flocks, Dr. C. B. Larson, Dr. J. L. Ehrenhaft** and **Dr. W. C. Keettel.** All are members of the faculty at The U. of I. College of Medicine.

Dr. J. H. Sunderbruch, of Davenport, has been re-elected chairman of the Scott County Board of Health.

Dr. Hormoz Rassekh, of Council Bluffs, has been elected president of the Pottawattamie-Mills County Medical Society. **Dr. Max Olsen,** of Minden, has been named president-elect; **Dr. Ralph Hopp,** of Council Bluffs, vice-president; and **Dr. Rosalie Neligh,** of Council Bluffs, secretary-treasurer.

Dr. Arthur Sciortino, of Council Bluffs, Dr. Olsen and Dr. Rassekh were elected as delegates to the 1972 IMS House of Delegates for Pottawattamie County, and **Dr. Robert Fryzek,** of Glenwood, was named delegate for Mills County.

Dr. C. W. Seibert, of Waterloo, was elected president of the community's Visiting Nurses Association at the organization's recent annual meeting.

Dr. Enrique Cubillo, a Des Moines radiologist, has been selected as an active member of the Radiological Society of North American Health.

At the annual meeting of the Polk County Medical Society, **Dr. William R. Hornaday, Jr.** was installed as president, succeeding **Dr. Homer E. Wichern; Dr. John Hess** was elected president-elect; **Dr. Dennis J. Walter,** trustee; **Dr. Norman K. Rinderknecht,** councilor; and **Dr. Donald C. Young,** secretary-treasurer.

Dr. Mark J. Tyler has joined Marion Medical Associates in Cedar Rapids. A native of Des Moines, Dr. Tyler received the M.D. degree at The U. of I. College of Medicine in 1968. Dr. Tyler completed his internship at Sacramento Medical Center, Sacramento, California, and served two years in the Air Force prior to moving to Cedar Rapids.

Dr. E. B. Getty, of Primghar, participated in a recent panel presentation on drugs and VD in his home community. Dr. Getty attended a drug seminar for physicians in Estes Park, Colorado last summer.

Dr. Paul L. Gjerstad, of Maquoketa, has been elected to active membership in the American Academy of Family Physicians.

Dr. H. G. Blume, a Sioux City neurosurgeon, has been named chairman of the medical advisory committee of the Northwest Iowa Chapter of the National Multiple Sclerosis Society. **Drs. Roland Langley** and **Barry Knapp,** both Sioux City physicians, also serve on the committee.

Dr. W. B. Lewis, a retired Webster City physician, has been appointed to the Hamilton County Hospital's board of trustees.



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Dr. J. F. Veverka, a Prairie City general practitioner, has been elected chief of staff at Broadlawns Polk County Hospital in Des Moines. Also elected at the annual medical staff meeting were **Dr. Robert C. Smith,** president-elect; and **Dr. John I. Hostetter,** secretary-treasurer.

Dr. and Mrs. George Montgomery, of Ames, were guest speakers at a recent meeting of the Iowa State University Faculty Women's Club. Dr. and Mrs. Montgomery showed slides and told of their experiences "Inside Zululand and Swaziland." The Montgomerys were medical missionaries for a year in a Ceza mission hospital in South Africa. Dr. Montgomery is an internist at McFarland Clinic and Mrs. Montgomery works part time as a nurse at Mary Greeley Hospital.

Dr. John Tyrrell, of Manchester, was the guest speaker at a recent meeting of the Johnson County Medical Society. Dr. Tyrrell, councilor for the 7th

IMS Judicial District, highlighted Iowa Medical Society activities and showed the audio-visual presentation, "Your IMS Dues Dollar."

Dr. C. L. Plott, a Spirit Lake surgeon, spent January in Kabul, Afghanistan, working as a visiting volunteer surgical specialist in a CARE-MEDICO hospital. Dr. Plott was primarily involved in the teaching program for 15 surgical residents who are training at the hospital. All hospital patients are cared for by the resident staff of Afghan physicians under the direction of the team surgeon and a visiting specialist. Dr. Plott is associated with the Spirit Lake Medical Center and is also on the surgical consulting staff of the Palo Alto County Hospital.

Dr. S. F. Yugend, of Indianola, has been appointed Warren County medical examiner.

The following Des Moines physicians have been elected to medical staff positions at Northwest Community Hospital—**Dr. Charles Johnson** has been named chief of staff, **Dr. Donna Drees,** vice-president; and **Dr. Norman Tubb,** secretary-treasurer.

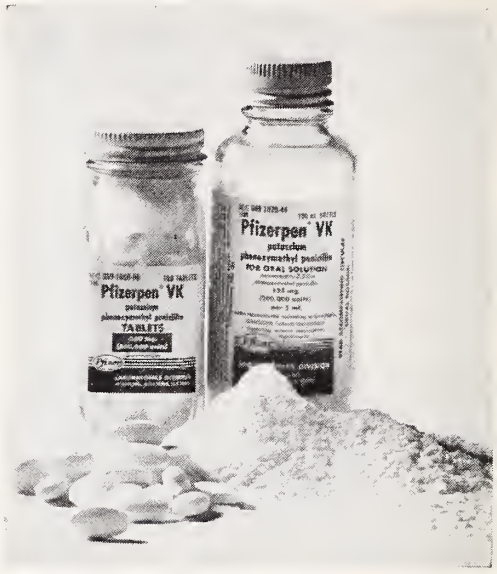
Dr. D. W. Hurlbut, of Elkader, has been named Clayton County Medical examiner by the Clayton County Board of Supervisors.

At the annual meeting of the Cerro Gordo County Medical Society, **Dr. A. J. Herlitzka** was elected president; **Dr. G. Travis Westly,** vice-president; **Dr. John Brinkman,** secretary; and **Dr. William Rosenfeld,** treasurer. All are Mason City physicians.

Dr. Gordon Cherwitz, a Davenport pediatrician, has been named city health officer. Since 1938, save for a few World War II years, the post has been held by **Dr. J. H. Sunderbruch.**

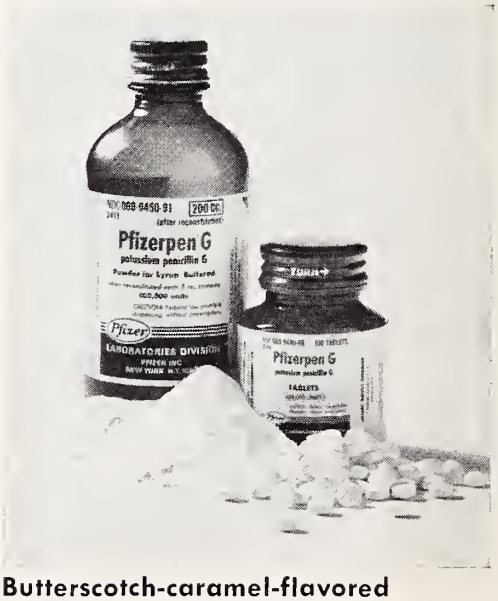
Dr. George L. Baker, assistant dean for medical student affairs at The U. of I. College of Medicine, recently addressed a group of Upper Iowa College students at Fayette. Dr. Baker's presentation was entitled, "Don't Interfere with the Lifeline." His talk is one of a series being given this academic year at more than 80 colleges and universities under the sponsorship of the American Medical Association Council on Foods and Nutrition.

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HOW SUPPLIED: Light blue Extentabs in bottles of 100 and 500.

Mr. J. Locke Macomber, of Des Moines, was recently appointed president of the Valley Bank and Trust Company. Mr. Macomber is active in the health care field as treasurer and director of Iowa Medical Service (Blue Shield).

Dr. Addison Brown, a Des Moines obstetrician and gynecologist, recently presented a program on smoking for residents of Dunlap and surrounding communities. Dr. Brown appeared on behalf of the American Cancer Society. The program was sponsored by Crawford and Harrison counties.

Dr. J. F. Moriarty, of Atlantic, has discontinued his medical practice in Atlantic and has joined the medical-surgical staff of the VA Hospital in Grand Island, Nebraska. A native of Omaha and graduate of the Creighton University College of Medicine, Dr. Moriarty had practiced medicine in Atlantic since 1946.

Dr. Paul W. Scott, of Ottumwa, has been named a member of the American College of Physicians.

Dr. J. H. Sunderbruch, a Davenport physician and past president of the IMS, has been named vice-president of the planning division for the newly formed United Way of Rock Island and Scott counties. The planning division's responsibilities include developing new programs and agencies, determining long range goals for community involvement and evaluation of programs and agencies that wish to apply for United Way funding.

Dr. Kenneth K. Hazlet, Dubuque county-city health director, has been elected to the board of trustees of the United States Conference of City Health Officers.

Dr. Louis Jensen, chief of staff at Veterans Administration Hospital in Knoxville, was recently cited for 30 years of service.

Dr. W. H. Verduyn, of Reinbeck, has been appointed Grundy County medical examiner, and **Dr. J. E. Rose**, of Grundy Center, and **Dr. Glendon Button**, of Conrad, are deputy medical examiners.

At a recent conference on rural health care held in Red Oak, **Dr. L. J. O'Brien**, of Fort Dodge, spoke on "Iowa Medical Society's Continuing Concern

SCANLON MEDICAL FOUNDATION/IOWA MEDICAL SOCIETY

A most worthwhile mechanism for creating a memorial to a relative, associate, colleague or friend exists in the Scanlon Medical Foundation/Iowa Medical Society. The Foundation utilizes memorial gifts to carry forward its loan program which has helped more than 300 young Iowans finance their medical educations. The Foundation will be glad to send an appropriate card in the name of the donor to the family of the person honored. The tax-deductible memorial gifts should be directed to the Scanlon Medical Foundation/ Iowa Medical Society, 1001 Grand Avenue, West Des Moines, Iowa 50265.

with Rural Health." Dr. O'Brien is president of the IMS. **James Jeffers**, Ph.D., of Iowa City, director of The U. of I. Health Economics Research Center, discussed "Southwest Iowa Facts and Figures and What They Mean," and **Dr. Robert Rakel**, of Iowa City, professor and head of The U. of I. Department of Family Practice, talked on "Rural Health Care Delivery: The University of Iowa Attacks the Problem." **Dr. Jack Fickel**, of Red Oak, presented the concluding summary, "Where Do We Go from Here with Health Planning?" The conference was a project of the Iowa Regional Medical Program.

Dr. Harry V. Robison, of Sioux City, has been certified a diplomate of the American Board of Family Practice.

Dr. George A. Paschal, who has been on the staff of the VA Hospital in Des Moines for the past 18 months, plans to return to Webster City. Before accepting the position in Des Moines, Dr. Paschal practiced medicine in Hamilton County for 38 years. Dr. Paschal's plans for resuming his medical practice in Webster City are indefinite.

Dr. John Lanning, of Charles City, was the guest speaker at the January meeting of the North Central Iowa Diabetes Unit. Dr. Lanning spoke on different phases of diabetes and explained the new treatments available for juvenile diabetics.

Dr. Stuart Sybesma and **Dr. Harold A. Van Hofwegen**, both Newton physicians, presented a recent Newton PTA program entitled, "Do You Know the Facts About VD?" Following the viewing of three film clips on venereal disease, Dr. Sybesma and Dr. Van Hofwegen answered questions and discussed the disease.

The Mahaska County Medical Society has elected **Dr. George S. Atkinson** president and deputy councilor; **Dr. N. L. Saxton**, vice-president; **Dr. Charles R. Argo**, secretary; **Dr. Keith Campbell**, treasurer; **Dr. Sidney Smith**, delegate; and **Dr. James L. Allen**, alternate delegate. All are Oskaloosa physicians.

Dr. K. E. Jauch, of La Porte City, has been reelected to active membership in the American Academy of Family Physicians.

An Ottumwa physician, **Dr. William D. Maixner**, has been awarded the Physician's Recognition Award by the American Medical Association for 1971. Dr. Maixner earned the award after a three-year qualification period during which time specific requirements were met in continuing medical education.

Recently elected officers of the Burlington Memorial Hospital Medical staff are: **Dr. Sixto Guiang**, president; **Dr. Bernado Pineda**, vice-president; and **Dr. Robert Bell**, secretary.

Dr. T. J. Carroll, of Sibley, has been named Osceola County medical examiner.

Dr. C. W. Beckman, of Kalona, was guest speaker at a meeting of the Washington Kiwanis Club. Dr. Beckman discussed programs designed to alleviate the rural doctor shortage. **Dr. Edward Vosika**, of Washington, cited five charter members of the club and summarized the Kiwanian ideals of citizenship, service and humanitarianism.

At the January meeting of the Stewart Memorial Community Hospital medical staff, **Dr. J. C. Comstock** was elected president; **Dr. W. A. McCrary** was named vice-president; and **Dr. R. P. Ferguson**, secretary. All are Lake City physicians.

DEATHS

Dr. Arthur L. Blome, 64, of Ottumwa, died January 6 at St. Joseph Hospital following a lengthy illness. Dr. Blome received the M.D. degree at The U. of I. College of Medicine in 1930 and practiced gynecology and obstetrics in Ottumwa for the past 28 years. He was a member of the Wapello County Medical Society, Iowa Medical Society and American Medical Association.

Dr. Frank W. Meyers, 98, a retired Dubuque physician, died January 7 at Xavier Hospital. A graduate of the University of Illinois School of Medicine, Dr. Meyers had practiced medicine in Dubuque for 50 years. He was a past president of the Dubuque County Medical Society and a life member of the Iowa Medical Society.

Dr. John W. Dulin, 66, an Iowa City surgeon, died January 8 at Mercy Hospital in Iowa City. Dr. Dulin received the M.D. degree at The U. of I. College of Medicine in 1929, and served his internship at Harper's Hospital, Detroit, Michigan, and Massachusetts General, Boston, Mass. Prior to going into private practice in Iowa City, he was an instructor in anatomy and professor of surgery at The U. of I. Dr. Dulin was a member of the Iowa Medical Society and American Medical Association.

Meeting of the

IMS

NOMINATING COMMITTEE

2:00 p.m., Sunday, March 26

IMS Headquarters Building

West Des Moines

Meetings of the Nominating Commitee are open to all members of the IMS in good standing, except when the Committee goes into executive session.

STATE DEPARTMENT OF HEALTH
Morbidity Report for January 1972

Diseases	Jan. 1972	1972 to Date	1971 to Date	Most January Cases Reported From These Counties
Brucellosis	3	3	1	Dubuque
Chickenpox	1120	1120	741	Dubuque, Johnson, Linn, Polk
Conjunctivitis	38	38	15	Jackson, Johnson
Gastrointestinal viral infection	936	936	1037	Jackson, Linn, Marion
German measles	32	32	70	Linn, Pottawattamie, Scott
Gonorrhea	494	494	321	Polk, Scott
Hepatitis				
infectious	22	22	39	Polk
serum	1	1	0	Scott
Histoplasmosis	4	4	1	Black Hawk, Cerro Gordo, Mahaska, Wapello
Impetigo	54	54	52	Jackson, Linn, Polk
Infectious mononucleosis	64	64	82	Johnson, Linn
Influenza, lab confirmed	4	4	0	Butler, Cherokee, Plymouth, Webster
Measles	86	86	38	Black Hawk
Meningitis				
pneumococcal	2	2	0	Page, Woodbury
type unspecified	1	1	3	Dubuque
Mumps	1166	1166	357	Dubuque, Linn, Polk
Pneumonia	113	113	97	Scott
Rabies in Animals	16	16	40	Hardin, O'Brien, Story
Rheumatic fever	5	5	9	Lee, Pottawattamie, Scott, Warren, Worth
Ringworm, body	16	16	4	Dubuque, Floyd, Johnson, Polk
Salmonellosis				
S. infantis	2	2	0	Black Hawk
S. schwarzengrund	1	1	0	Polk
S. typhimurium	3	3	1	Polk
type unspecified	1	1	0	Scott
Shigellosis				
S. sonnei	30	30	2	Black Hawk, Linn, Wapello
Streptococcal infections	713	713	545	Johnson
Syphilis	41	41	36	Linn, Polk, Story
Tuberculosis, active	12	12	6	Buena Vista, Polk
Whooping cough	1	1	0	Black Hawk

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Doctor's Business

by LARRY E. LEAVERTON

EQUIPPING THE MEDICAL OFFICE

Experience in selecting and purchasing equipment comes in several ways. For the newly established practice the cost can be staggering. The investment however is a necessary one. Many patients will judge a physician initially by the appearance of his office and by the quality and efficiency of his office equipment. In the new practice a good rule to follow is to purchase quality items, perhaps limiting the quantity, with a plan to add more equipment as the practice grows. Frequently good quality used equipment is available from another physician closing his office.

In the case of the established office, purchases of new equipment are often necessary due to expansion of facilities, obsolescence, renovation, or because of new modern items on the market. The trend to larger more spacious and efficient layouts necessitates, for example, more fully equipped examination rooms, a larger business office with more file space, and other equipment to save both time and steps.

There are many offices where improvements could be made to bring about increased comfort, to improve the appearance from the standpoint of the patient, and to increase the overall efficiency of the staff. Some physicians have the latest in diagnostic equipment but expect their business office assistant to work at an old desk with an uncomfortable chair and use a 25 year old manual typewriter.

The first view a visitor gets is of the reception room. The reception area should be tastefully furnished and decorated with comfortable chairs, reading lamps and good quality carpeting.

In the business office the trend is toward counter type work areas replacing the conventional desks for business office personnel. Adjustable posture chairs for comfort will increase efficiency and prevent fatigue. Lighting should be adequate. With the volume of paperwork increasing, electric typewriters and adding machines are a necessity. If space is at a premium, as it is in most offices, shelf files for case histories will increase the file cabinet capacity. In addition, the files are visible and this speeds filing and retrieval. Color-coded tabs will further increase filing efficiency by reducing the amount of misfiling. Shelf files can be purchased with doors and in decorator colors. A fire resistive locked file is important for protection of active accounts receivable and other valuable records. The majority of medical offices today are using machine copied statements. If you are not satisfied with the appearance of your statement there are many copy machines that will provide a dry copy with reasonable speed at a reasonable cost. As with all items of office equipment it is important to buy from reputable dealers.

Other business equipment which can increase efficiency and production include desk top organizers for your bookkeeper or insurance clerk, and modern mailing machines if your volume of mail warrants it. You may have tried dictating equipment or inter-com systems in the past and discarded the idea. There have been revolutionary improvements made here in recent years. You may want to try them again. With crime on the increase it is well to investigate security equipment such as pick-resistant locks, alarm systems, safes and other protective devices. Every office should have a serviceable fire extinguisher for a small fire.

The latest in modern quality medical and laboratory equipment is also necessary to handle increased patient volume.

The question is often asked, "Should I lease or purchase my new equipment?" In general, it is almost always preferable to purchase the equipment you need rather than enter into a lease agreement. Obsolescence and tax consideration usually are not factors. In most leases you are obligated to complete the length of the lease. Lease payments on business equipment are tax deductible but so is the cost of purchased equipment through annual depreciation.

With all of the day-to-day activities of a busy practice most physicians do not take time to observe their office from the standpoint of appearance to the patient, as well as comfort, convenience and efficiency to the staff. If you haven't redecorated in the past five or 10 years or purchased any new equipment, it might be well to replace that worn carpet in the reception room or equip an extra exam room.

Mr. Leaverton is Director of Research and Development for Professional Management Midwest.

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Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

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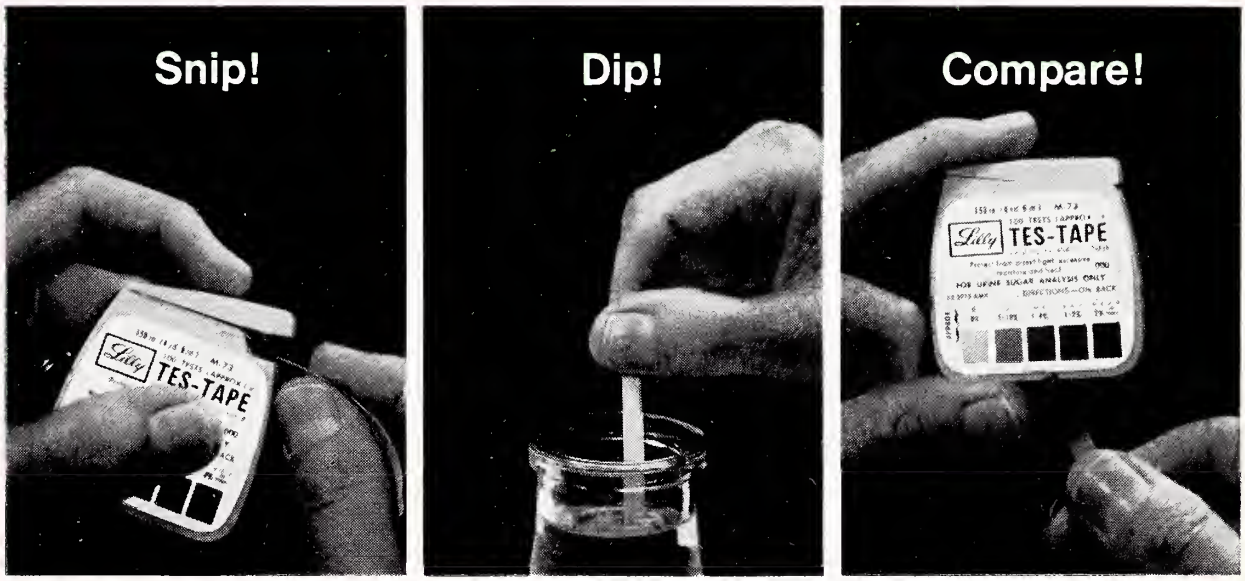
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- **Special University Issue**
- **Annual Meeting—April 23 to 26**

APRIL 1972

President's Page



All members of the Iowa Medical Society should contribute (themselves) to and benefit from the IMS Annual Meeting. Your Program Committee has labored long to devise an excellent program (See March JOURNAL) with diverse and stimulating medical presentations. The program is geared to the varied interests of family practitioners and specialty oriented physicians. Also, the program is designed to allow adequate opportunity for you to confer informally with other physicians about personal interests and pursuits.

The House of Delegates, with its system of Reference Committees, will evaluate controversial subject matter. It will attempt to determine the effect of various concepts on the quality of care. Positions on current ideas will be formulated. Opportunity will be available for all interested IMS members to speak on subjects of concern to them.

Today, as perhaps never before, both the scientific and socio-economic aspects of medicine are vital to you. SO PARTICIPATE IN THE 1972 ANNUAL MEETING—April 23 to 26.

L. J. O'Brien M.D.

President

Second-class postage paid at Fulton, Missouri, and (for additional mailings) at Des Moines, Iowa. Published monthly by the Iowa Medical Society at 1201-5 Bluff Street, Fulton, Missouri 65251. Editorial Office: 1001 Grand, West Des Moines, Iowa 50265. Subscription Price: $5.00 Per Year.

"The history of science, and in particular the history of medicine . . . is . . . the history of man's reactions to the truth, the history of the gradual revelation of truth, the history of the gradual liberation of our minds from darkness and prejudice."

—George Sarton, from "The History of Medicine Versus the History of Art"

Should nongovernment scientists and physicians play a role in drug regulation?

Opinion

Results of a questionnaire to 7000 physicians:

82.8%
Physicians should play a role

78.3%
Independent scientists should play a role

69.8%
Medical academicians should play a role

Opinion & Dialogue

Dialog

Should nongovernment scientists and physicians play a role in drug regulation?

Doctor of Medicine

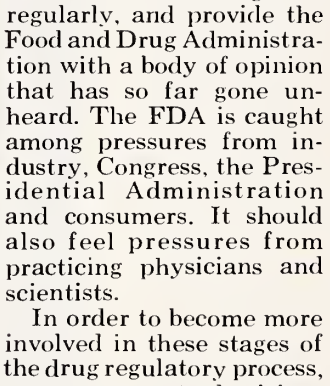
Herbert L. Ley, Jr., M.D., M.P.H., Formerly Commissioner, F.D.A. (1968-1969) Currently Medical Consultant

In order for drug regulation to be effective, participation in the regulatory process from nongovernment physicians and scientists must be encouraged. Without such involvement, there will continue to be a high degree of controversy surrounding any regulations promulgated by the Food and Drug Administration.

There are two areas in which participation and communication by nongovernment physicians and scientists could significantly improve the process of regulation. First, scientists and physicians throughout the country could become involved in consulting relationships with the Food and Drug Administration in important scientific areas while regulatory policies are being evolved. If nongovernment professionals could bring their expertise and experience to bear early in the decision-making process, they would have less reason to criticize the final outcome.

Secondly, practicing physicians, academic physicians, and academic-based scientists could make it their business to comment on proposed regulations appearing in the Federal Register. Ideally, a system could be instituted whereby medical, scientific and technical people could see the Federal Register regularly, and provide the Food and Drug Administration with a body of opinion that has so far gone unheard. The FDA is caught among pressures from industry, Congress, the Presidential Administration and consumers. It should also feel pressures from practicing physicians and scientists.

In order to become more involved in these stages of the drug regulatory process, nongovernment physicians and scientists should begin to exercise their influence through their respective professional organizations,



state and national medical societies, and specialty groups. Logically, a letter from these organizations representing a collective opinion has far greater weight in the regulatory process than individual letters. If the Food and Drug Administration receives opinions from these organizations early, before a regulation gets into the Federal Register, they are in a good position to respond with further study and review. Without such dissenting opinions, there is very little incentive to make changes in proposed regulations.

One instance in which practitioners did influence drug regulatory affairs in this way is the recent controversy that arose over the legitimacy of drug combinations. The strong opinion of practitioners on the value of such medication in clinical practice played a very prominent role in making the Food and Drug Administration modify its rather restrictive policy.

Another way in which practitioners can effectively influence drug regulations is by working with drug manufacturers conducting clinical trials of chemotherapeutic agents. When a drug is rated other than effective it may only mean that there is a lack of controlled clinical evidence as to efficacy. Thus, physicians might offer to conduct clinical studies that could help keep a truly effective drug in the marketplace. The treatment of diseases such as diabetes and angina are areas where the practitioner can aid in clinical studies because patients suffering from these diseases are rarely found in the conventional hospital setting.

By working with ethically and scientifically sound study designs in his everyday practice, the practitioner could begin to play an important part in determining official ratings on drug efficacy.

Nongovernment physicians and scientists and the FDA should also improve their lines of communication to the public. The medical community must develop a voice every bit as loud as that of the consumerists, the press, and others who sometimes criticize without complete information. If not, much of wh
the medical communi
and federal regulators
will often be represented
simplistic and somewh
misleading terms.

One illustration of t
misuse of the media in th
regard is the recall of an
coagulant drugs sever
years ago. This FDA acti
was given publicity by t
press and television th
went far beyond its pro
able importance. The resu
was a very uncomfortab
situation for the pract
tioner who had patien
taking these medicatio
Since the practitioner ar
pharmacist had not be
informed of the action
the time it was publicize
in most states they we
deluged with calls fro
worried patients.

The practitioner can a
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lems of inadequate comm
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of a communications li
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is to be announced, the s
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distribute a message to e
ery pharmacist in the stat
The pharmacist, in tur
could notify the physicia
in his local community
that he and the physici
could be prepared to a
swer inquiries from p
tients. Another approac
would be to use profe
sional publications t
practitioner receives.

All of this leads back
my opening contention:
drug regulation is to be e
fective, timely, and relat
to the realities of clinic
practice, a better method
communication and fee
back must be developed b
tween the nongovernme
tal medical and scienti
communities and the reg
latory agency.

ue

Maker of Medicine

Henry W. Gadsden, hairman & Chief Executive Officer, Merck & Co., Inc.



In my opinion, it is the esponsibility of all physi- ans and medical scientists o take whatever steps they ink are desirable in a law- nd regulation-making rocess that can have far- eaching impact on the ractice of medicine. Yet nany events in the recent ast indicate that this is ot happening. For exam- le, it is apparent from rug efficacy studies that he NAS/NRC panels gave ittle consideration to the vidence that could have een provided by practic- ng physicians.

There are several current levelopments that should ncrease the concern of racticing physicians about rug regulatory affairs. One s the proliferation of mal- ractice claims and litiga- ion. Another is the effort y government to establish he relative efficacy of lrugs. This implies that if physician prescribes a lrug other than the "estab- ished" drug of choice, he nay be accused of practic- ng something less than irst-class medicine. It would come perilously lose to federal direction of ow medicine should be racticed.

In order to minimize this kind of arbitrary federal action, a way must be found to give practitioners both voice and representation in government affairs. Government must be caused to recognize the essentiality of seeking their views. One of the difficulties today, however, is that there is no way for concerned practitioners to participate in the early stages of decision-making processes. They usually don't hear about regulations until a proposal appears in the Federal Register, if then. By that time a lot of concrete has been poured, and a lot of boots are in the concrete.

Physicians in private practice, and particularly clinicians, should press for representation on the advisory committees of the Food and Drug Administration, joining with academic and teaching hospital physicians and scientists who are already serving. Though practitioners may not have access to all available information, the value of their clinical experience should be recognized. Clinicians, for example, rightly remind us that difficulty in *proving* precise effects does not necessarily mean a drug is ineffective.

Unless practitioners are more involved in drug regulations, it will be increasingly difficult for the pharmaceutical industry and scientists elsewhere to make optimal progress in drug development. The benefit/risk ratio must be re-emphasized, and as part of this it must be acknowledged that benefit can come from the judgments of medical science as a whole. Even this concept, unfortunately, is not always accepted in drug regulatory processes. For example, if current medical opinion holds that an excess of total lipids and cholesterol in the blood is probably predisposing to atherosclerosis, and if a drug is discovered which reduces total lipids and cholesterol, the drug ought to be accepted *prima facie* as a contribution to medical science . . . until someone disproves the theory. The sponsor should not have to prove the theory as well as to develop and test the drug.

I feel a major new effort must also be made to erase the feeling of mistrust of medicine and of medicines that seems to be growing in the public consciousness. Triggered primarily by strident announcements in Washington, people are reading and hearing confidence-shaking things almost continuously. Although challenge and awareness are essential to medical advancement, our long-term goal is constructively to build, not destroy. This means strengthening patient-physician relationships based on mutual confidence and trust. And in matters of health policy, it means working toward participatory rather than adversary proceedings—where everyone with an interest and a capacity to contribute has an opportunity to be heard . . . and, if that opportunity is not spontaneously afforded him, he may seek it.

Opinion & Dialogue

What is your opinion, doctor?
We would welcome your comments.

P·M·A

The Pharmaceutical Manufacturers Association
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THE JOURNAL OF THE IOWA MEDICAL SOCIETY

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Postmaster, send form 3579 to the above address.

IOWA Medical Miscellany

ANNUAL MEETING TIME . . . Final reminder: the 1972 Annual Meeting of the Iowa Medical Society will occur in Des Moines this month. Sessions of the House of Delegates are on tap Sunday and Wednesday, April 23 and 26. Sessions of the House are open to all Society members. House reference committees will conduct hearings Sunday afternoon in which interested IMS physicians may participate. Scientific and socio-economic presentations will head the Monday and Tuesday (April 24 and 25) schedule. The Annual banquet Tuesday evening will include a talk by Columnist Ann Landers and the presentation of special awards. Full program for the 1972 Annual Meeting appeared in the March issue of the JOURNAL.

GENERAL ASSEMBLY ENDS . . . Iowa's lawmakers concluded their 1972 legislating March 24. Lowering adult rights to age 19 was the session's most debated enactment. This legislation has specific impact for Iowa physicians in that treatment may now be instituted with the approval of the 19-year old; the need for parental approval is eliminated.

HMO STATUS QUO . . . A late-in-the-session effort to secure Senate passage of a new health maintenance organization (HMO) proposal failed to generate the necessary steam. The HMO proposition (S.F. 1212), which found its way into circulation in the Assembly's waning days, was reported out of the Senate State Government Committee. Very brief (a-page-and-a-half) and very broad in scope, this latest proposal is silent on many important matters. It does permit physicians to be employed on salary by an HMO corporation —either profit or non-profit. This provision is strongly opposed by the Society. The three existing HMO proposals (S.F. 1212, the Doderer-Messerly bill and the IMS proposal) must now await another day in the legislative arena.

APPROVE RENAL DIALYSIS . . . Iowa Governor Ray has signed into law renal disease legislation (S.F. 590) which (1) establishes an 11-member Renal Disease Advisory Board (to include two physicians) and (2) provides $30,000 to form the Board and blueprint a program.

OSTEOPATHIC APPROPRIATION . . . By a narrow margin the Iowa Senate approved a House measure to provide $500,000 to the Des Moines College of Osteopathic Medicine and Surgery. Governor Ray supports the legislation and has signed it into law.

WASHINGTON JUNKET . . . Three members of the IMS Legislative Committee traveled to Washington, D. C., in March, with the Society's President and the Chairman of the Board of Trustees, to confer collectively and individually with Iowa's congressional delegation. In addition to IMS President L. J. O'Brien, M.D., Fort Dodge, and Board Chairman R. L. Wicks, M.D., Boone, the entourage included J. H. Kelley, M.D., Des Moines, R. M. Chapman, M.D., Cedar Rapids, and Erling Larson, Jr., M.D., Davenport.

STAFF APPOINTMENT . . . Richard W. Phillips, 24, accepted in March a joint appointment to the staffs of the Iowa Medical Society and Blue Shield. Phillips will serve in a new position as Agency Liaison Representative. In this capacity he will work in behalf of both organizations with such private and governmental agencies as the Health Planning Council of Iowa, the Office of Comprehensive Health Planning and the Iowa Regional Medical Program. Phillips was graduated from The University of Iowa in 1970 and has been associated with the Independent Insurance Agents of Iowa.



BLUE SHIELD OFFICERS . . . In recent action taken by the Blue Shield Board of Directors, S. P. Leinbach, M.D., Belmond, was elected Chairman of the Board to succeed C. V. Edwards, Sr., M.D., Council Bluffs. C. E. Radcliffe, M.D., Iowa City, was elected President of Blue Shield, to fill the post vacated by Dr. Leinbach.

(Please turn to page 202)

UNIVERSITY ISSUE



It is a privilege and pleasure for the College to have the opportunity once again to present a University issue of the JOURNAL. We are increasingly aware of the desirability of interrelating with various individuals, groups and agencies throughout the state. And certainly it is especially important that we keep open all available communication channels with the physicians of Iowa.

We are being told constantly that the medical profession is faced with a crisis of staggering proportions in seeking to satisfy society's expectations and demands for the provision of optimum health care. If the medical community is to have a significant impact on the revolutionary changes being proposed in the system of health care and health care delivery in this country, we must marshal all of our representative organizations to provide positive direction and leadership. For this and other reasons, I am most grateful for the reception I have received from the Iowa Medical Society on the several occasions I have appeared before its members to discuss issues of mutual interest and concern. We at the College look forward to strengthening even further our relationships with the state and county societies, as well as with the individual members which these organizations represent.

We are most appreciative of the fact that the College of Medicine has long enjoyed a warm and fruitful association with the physicians of Iowa and the region. It is our intention to build on this relationship in whatever ways we are able. We therefore hope that you will let us know your thoughts on our efforts whenever you feel that a direct exchange may be beneficial.

JOHN W. ECKSTEIN. M.D.
Dean, College of Medicine

CONTINUING EDUCATION ACTIVITIES

A total of 4,708 registrations occurred during the 1970-71 academic year in various continuing medical education activities of The U. of I. College of Medicine. These registrations were represented in 123 extremely varied courses, workshops, symposia and traineeships. Ninety-six took place in Iowa City and 27 more were provided at other locations in the State. The College's educational activities for practitioners have been increasing greatly and will likely show continued growth as offerings become more varied, individualized, and responsive to the clinician's heightened awareness of his need for more personal activity in his own continuing education.

FEBRUARY REFRESHER COURSE—Recent four-day Refresher Course for the Family Physician is an example of the continuing education programming at The U. of I. College of Medicine. Approximately 225 physicians from Iowa and all neighboring states attended the February 15-18 course. Several course participants are shown in these pictures.

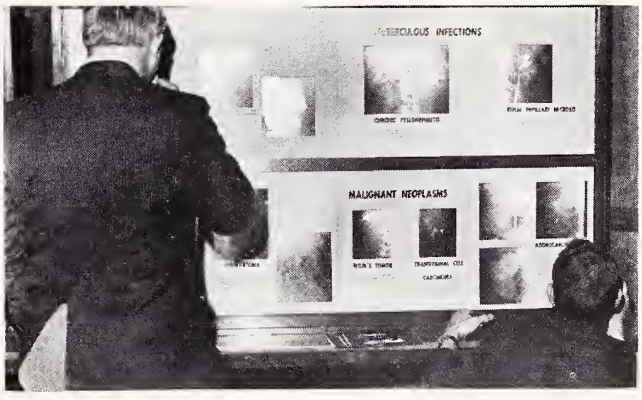
















IOWA PRACTITIONERS ON COLLEGE COMMITTEES

In the current year 12 Iowa physicians are serving on committees of The U. of I. College of Medicine. The Preceptorship Committee has had such representation for a number of years, but appointment to other committees is a recent and important development. This is an effort by the College to bring itself into closer contact with Iowa medicine. The College acknowledges with much gratitude the valued service of these practitioners.

PRECEPTORSHIP COMMITTEE

Lynn D. Caraway, M.D., Amana, Iowa 52203
John R. Scheibe, M.D., Gilfillan Clinic, Bloomfield, Iowa 52537
James D. Kimball, M.D., 630 West McLane Street, Osceola, Iowa 50213

ADMISSIONS COMMITTEE

John Tyrell, M.D., 410 N. Franklin St., Manchester, Iowa 52057
R. D. Whinery, M.D., 2409 Towncrest, Iowa City, Iowa 52240

CONTINUING MEDICAL EDUCATION COMMITTEE

Arthur Barnes, M.D., 3330 Mt. Vernon Rd., S.E., Cedar Rapids, Iowa 52402
Roy W. Overton, 1215 Prospect St., West Des Moines, Iowa 50265
William Galbraith, M.D., 717 A Avenue, N.E., Cedar Rapids, Iowa 52401
David Kapp, M.D., 1200 Main Street, Dubuque, Iowa 52001
John MacGregor, M.D., 118 Medical Arts Building, Mason City, Iowa 50401
John Rhodes, M.D., 202 North Main Street, Pocahontas, Iowa 50574

MEDICAL EDUCATION COMMITTEE

J. H. Dunlevy, 304 South Maple Street, Fairfield, Iowa 52556

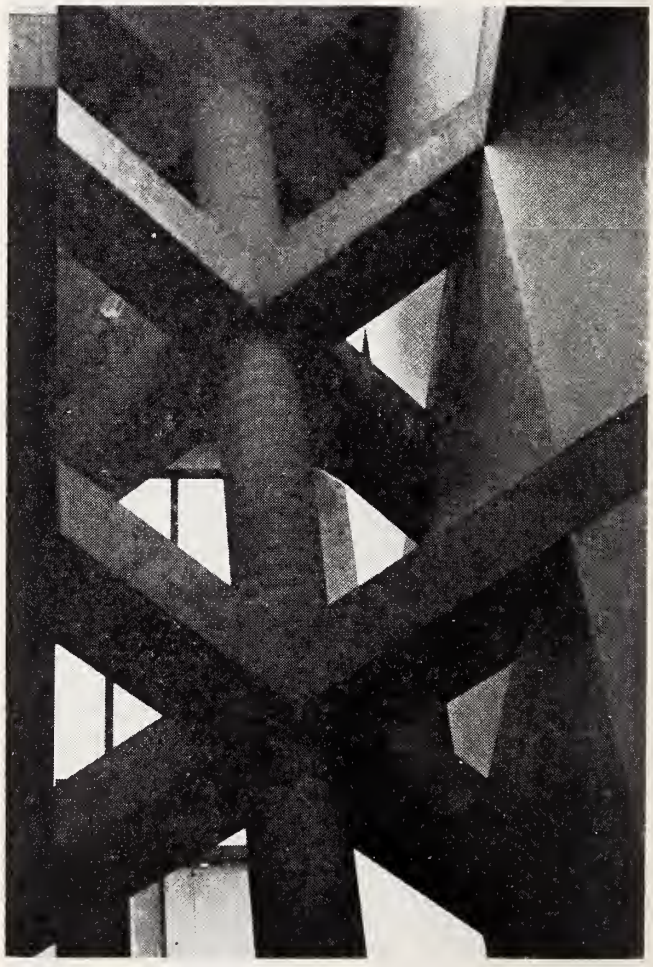
U. OF I. BASIC HEALTH SCIENCES BUILDING

Construction of $14.8 million Basic Health Sciences Building is moving toward completion this year. The massive (202,000 net sq. ft.) and unique structure will include 800 rooms on six floors.

The building will provide basic instructional space for the various health disciples, i.e., medicine, dentistry, nursing, pharmacy, physical therapy, medical technology, etc. It will be the base for instruction in anatomy, biochemistry, physiology, pharmacology and microbiology. It will provide space for extensive research.



LECTURE AREA—Theater-type instructional or lecture rooms, three in number, adjoin one another in circular fashion and share a common control facility for projection and other purposes.



UNIQUE STRUCTURE—Shown above is a portion of the open area which extends full height of the new U. of I. Basic Sciences Building. An interesting arrangement of supporting columns is prominent.

MANY THANKS TO IOWA PRECEPTORS

In the 1970-71 academic year, 84 Iowa physicians served as preceptors to students of The U. of I. College of Medicine who were fulfilling the curricular preceptorship requirement.

These physicians have given generously of their time, effort and funds in providing senior medical students an opportunity to fulfill their curricular requirement for a preceptorship. This program seeks to acquaint students with medical practice away from the academic center. It enables the student to see an office in operation and observe the kinds of relationships a practicing physician has with his patients, his office personnel, his colleagues, his family and his community.

In his capacity as preceptor, the physician has the satisfaction of teaching and contributing to medical education. He also benefits educationally from this close association with a young and eager medical student.

Beginning with the current academic year and the adjustments to the new curriculum, the required preceptorship has been changed to a two-week experience that will take place somewhere within the third year schedule of each student, and must be spent with a physician engaged in providing primary care (family physician, general internist, or general pediatrician). The elective opportunities of the fourth year will provide students a chance to arrange additional preceptorships of varying kinds, coordinated through the respective clinical department of the College.

The students and the College of Medicine express sincere appreciation to these dedicated physicians:

PRECEPTORS 1970-1971

Clifton Anderson, M.D. ..... Iowa City
George Aurand, M.D. ..... Clinton
Thaddeus Bozek, M.D. ..... Iowa City
Richard Brandt, M.D. ..... Fort Dodge
James Bullard, M.D. ..... Decorah
Burns Byram, M.D. ..... Marengo
Rodney Carlson, M.D. ..... Ankeny
Craig Champion, M.D. ..... Iowa City
Kenneth Cross, M.D. ..... Iowa City
William deGravelles, M.D. ..... Des Moines
James Dolan, M.D. ..... West Des Moines
James Donahue, M.D. ..... Davenport
James Dunlevy, M.D. ..... Fairfield
Charles Edwards, M.D. ..... Council Bluffs
Charles Eicher, M.D. ..... Iowa City
Maurice Estes, M.D. ..... Cedar Rapids
Kennedy Fawcett, M.D. ..... Ames
Walter Friday, M.D. ..... Burlington
Lorraine Frost, M.D. ..... Iowa City
James Gardner, M.D. ..... Iowa City
Thomas Garside, M.D. ..... Bettendorf
Webster Gelman, M.D. ..... Iowa City
Elmer Groben, M.D. ..... Iowa City
James Hendricks, M.D. ..... Clear Lake
John Hennessey, M.D. ..... Manilla
Alfred Herlitzka, M.D. ..... Mason City
Richard Hockmuth, M.D. ..... Iowa City
William Hornaday, M.D. ..... Des Moines
Gerald Howe, M.D. ..... Iowa City
John Huston, M.D. ..... Cedar Rapids
Lewis Jacques, M.D. ..... Iowa City
Wendell Johnson, M.D. ..... Ames
Kenneth Judiesch, M.D. ..... Iowa City
Franklin Kapke, M.D. ..... Mason City
Peter Kepros, M.D. ..... Cresco
Thomas Kiernan, M.D. ..... Newton
Edson Knight, M.D. ..... Marshalltown
Paul Koellner, M.D. ..... Ames
Augustus Kuhl, M.D. ..... Davenport
Karl Larsen, M.D. ..... Iowa City
Lawrence Larsen, M.D. ..... Harlan
John MacGregor, M.D. ..... Mason City
John Maxwell, M.D. ..... Iowa City
Robert McCool, M.D. ..... Clarion
Guy McFarland, M.D. ..... Iowa City
Earl McKeever, M.D. ..... Knoxville
Stuart McQuiston, M.D. ..... Cedar Rapids
Beryl Michaelson, M.D. ..... Humboldt
Jay Miller, M.D. ..... Wellman
Lawrence Miller, M.D. ..... North English
Keith Mills, M.D. ..... Lone Tree
James Mincks, M.D. ..... Bloomfield
Thomas Nicknish, M.D. ..... Iowa City
Ronald Olsen, M.D. ..... Muscatine
Roy Overton, M.D. ..... West Des Moines
John Peterson, M.D. ..... Hartley
Thomas Piekenbrock, M.D. ..... Dubuque
Richard Quetsch, M.D. ..... Cedar Rapids
Aaron Randolph, M.D. ..... Anamosa
Larry Rigler, M.D. ..... Iowa City
William Robson, Jr., M.D. ..... Cedar Rapids
Wayne Rouse, M.D. ..... Boone
Howard Rudersdorf, M.D. ..... Sioux City
John Scheibe, M.D. ..... Bloomfield
E. O. Schlichtemeire, M.D. ..... Spencer
Warren Scott, M.D. ..... Mt. Pleasant
A. C. Selke, M.D. ..... Cedar Rapids
Roger Simpson, M.D. ..... Iowa City
Charles Skaugstad, M.D. ..... Coralville
Robert Sprowell, M.D. ..... Ames
Richard Stuelke, M.D. ..... West Branch
Robert Swaney, M.D. ..... Cedar Rapids
Leslie Swanson, M.D. ..... Mason City
Wayne Tegler, M.D. ..... Iowa City
Herbert Tjaden, M.D. ..... Burlington
J. C. Timmerman, M.D. ..... Iowa City
Robert Updegraff, M.D. ..... Des Moines
Paul Vander Kooi, M.D. ..... Orange City
Thomas Viner, M.D. ..... Leon
Duane Warden, M.D. ..... Council Bluffs
Desmond Waters, M.D. ..... Williamsburg
Campbell Watts, M.D. ..... Cedar Rapids
Peter Whitis, M.D. ..... Dubuque
Donald Young, M.D. ..... Des Moines

NEW CANCER TRAINEESHIP FOR PRACTITIONERS

For the first time The U. of I. College of Medicine has obtained funds to offer a unique one-month traineeship in clinical oncology to a small number of Iowa practitioners. The training grant will provide room, board and laundry, plus a stipend of $800 *to help defray the expense of locum tenens coverage* and other expenses at home.

The month will be tailored to suit the individual needs and problems of the trainee. The emphasis will be on an interdisciplinary approach to cancer. Practitioners of any background or medical discipline will be eligible.

The traineeship coordinator will be the Assistant Dean for Continuing Medical Education. He will develop an individualized schedule for each trainee, assure an appropriate experience during the month; he will also assist in helping locate a locum tenens. This traineeship will provide credit hours for members of the American Academy of Family Physicians or toward the AMA Physician's Recognition Award.

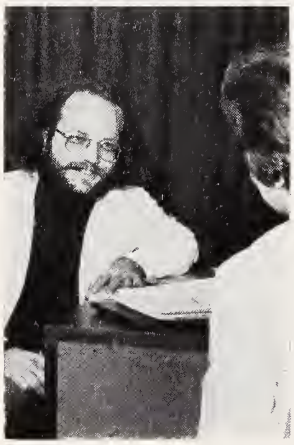
Those interested in this completely new type of continuing education experience may contact: **Richard M. Caplan, M.D.**, *Office of Continuing Medical Education, University of Iowa College of Medicine, Iowa City, Iowa 52240.*

NEW RURAL HEALTH CENTER AT OAKDALE

The Model Rural Health Center opened in February at The U. of I. Oakdale Medical Campus. The clinic is designed as a training center and is serving residents of northwest Johnson County. Its atmosphere and method of operation are intended to reflect the family physician's office for the educational benefit of the medical students.

The new Oakdale facility is an integral part of the Department of Family Practice within the College of Medicine.







OAKDALE FACILITY—At the nurses' station (top) in the well-equipped Model Rural Health Center are Jim Powell, sophomore medical student from LeMars, Helen Murray, R.N., a member of the Center staff, and Linda Streb, secretary to Thornton Bryan, M.D., associate professor of family practice. S. Ross Haecker, sophomore medical student from Davenport, takes a patient history in one of the Center's offices in lower left. Main reception area is covered (lower right) by Receptionist Anne Green.

CANCER REFERRAL

The physician referral of patients with melanomas and sarcomas of soft tissue and bone has been requested by the National Cancer Institute's Surgery Branch. Needed are patients with primary tumors and those with limited metastases which are amenable to primary surgical treatment. Selected patients will be admitted to combined surgery, chemotherapy and immunotherapy protocols. Upon completion of the studies, patients will be returned to the care of the referring physician who will be provided a summary of the findings. Similarly, patients with cancer of the oral cavity, pharynx or paranasal sinuses are desired. Physicians wishing more information may contact A. S. Ketcham, M.D., Clinical Center, Room 10-N-116, National Institutes of Health, Bethesda, Maryland 20014.

University Drug Letter

by JOHN CLANCY, M.D.

TREATMENT OF ACUTE ALCOHOLISM AND DELIRIUM TREMENS

Even though the concept of alcoholism, defined as a disease, has the support of society's revered institutions, this may be more a support of policy than a scientific fact.[1] The single outstanding feature of alcoholism is the behavior pattern of drinking only to excess. Labeling this behavior a disease does not make it more amenable to medical treatment nor does it make alcoholism the sole responsibility of the medical profession. It does, however, reflect society's determination to do something about it and for the physician it has become a fact of life and medical practice.[1] Lack of convincing etiology underlies the problematical disease question. There may be a number of alcoholisms and a number of causative factors. A predisposition of some kind—either genetic or acquired—is held by many to predate the excessive drinking. The pathological drinking patterns in turn produce physiologic, psychologic and social damage which tend to overshadow predisposing conditions. Finally a series of organic syndromes emerge which signify another stage of progression. While these syndromes will certainly occupy the physician's attention in the diagnosis and management of alcoholism, the essence of the disease is clearly not to be found in these end results.[1]

The acute complications of alcoholism are practically infinite in number if in addition to the psychiatric, neurological and somatic complications the multiple social and interpersonal problems are also included. The physician encounters all of these in practice and is expected to manage them regardless of his ability, training or desire to do so. Many of the attendant social problems brought to him by alcoholic patients are in my opinion outside the purview of medical practice and could be better managed by social agencies or organizations with special programs directed to long term treatment of alcoholism.[2] In the medical treatment I shall confine myself to the consequences of acute inebriation and the psychiatric conditions associated with withdrawal from alcoholism, since these are the ones that the physician will be most frequently called upon to treat and they also fit the medical model concept of disease.

It is well to remember that the degree of intoxication does not always relate directly to blood alcohol level. The body appears capable of making some adjustment to the presence of alcohol. In a very convincing experiment investigators have demonstrated that the effect of alcohol was not so much determined by its absolute blood level or its rate of increment but rather by the length of time it had been present in the body.[3] The degree of intoxication is much less at a given high blood alcohol level when the rate of ingestion has been slow and the body has had time to adapt. It is also apparent that the habitual drinker develops a degree of tolerance to alcohol and shows less effects than the periodic drinker. This phenomenon is not well understood and attempts are made to explain it on the basis of either slower absorption, more rapid oxidation or an altered nervous tissue response.[4] It is probable, too, that a psychological adaptation is part of this tolerance phenomenon.

In considering the acute alcoholic syndromes, it is necessary to distinguish those due to inebriation and those due to withdrawal from alcohol.

(1) Acute Intoxication or Inebriation States

This group of patients whether drunk, boisterous, stuporous or comatose comprise the largest group of alcoholic patients brought to the hospital emergency room. Acute inebriation is one of the most common causes of coma and the management of these patients may be largely a matter of differential diagnosis of coma. Most cases of alcoholic coma are neither deep or prolonged and treatment usually consists of the provision of a quiet room, with careful observation and monitoring of vital signs. Occasionally a patient is brought

Dr. Clancy is a Professor in the Department of Psychiatry at The U. of I. College of Medicine. This discussion appeared initially in the December, 1971 issue of DRUG LETTER, a monthly intramural publication of University Hospitals prepared jointly by the Pharmacy Department and the Clinical Pharmacology Committee.

into the emergency room in a state of severe intoxication with hyporeflexia and pallor and a blood alcohol level of 0.35 to 0.50 per cent. Such a case may well prove fatal and requires careful support of respiration and maybe use of cardiac stimulants if peripheral vascular collapse should occur. Unfortunately there seems to be no assured method or drug which will substantially increase either the oxidation or excretion of alcohol from the body. Some of these inebriated patients may require sedation to control behavior; sedatives and hypnotics should be used sparingly at first because of additive effects. It is better to repeat a small dose of sedative rather than risk sending a patient into coma with a large dose at the outset.

(2) Withdrawal, Delirious, and Seizure States

This group constitutes the majority of hospital admissions for alcoholism and symptoms almost always appear after cessation of drinking. These conditions may occur together or distinct from each other. The history is usually one of binge or spree drinking of about two weeks' duration culminating in exhaustion, nausea, anorexia, sleeplessness, tremor, agitation and tachycardia. Tremor is the outstanding feature and may be subjectively reported by the patient as the "shakes" or "jitters." Symptoms reach their peak between twenty-four and seventy-two hours after the last drink and one patient in four will develop illusions or hallucinations—visual, auditory, tactile or mixed in character. A dangerous further development of this syndrome, with a mortality rate of 15 per cent in untreated cases, is delirium tremens. Now to this picture of withdrawal are added transient attacks of confusion and disorientation, increased psychomotor activity, severe disorders of perception, autonomic disturbances with fever, tachycardia, dilated pupils, profuse sweating and electrolyte disturbances.

Another complication of alcohol withdrawal to be reckoned with is seizure activity. These seizures of the grand mal type are almost always confined to chronic alcoholics and again the majority occur in the first forty-eight hour period after cessation of drinking. They usually occur in bursts of two or more. An ominous point is that these seizures frequently precede the onset of delirium tremens.[4] Other less frequent though nonetheless acute complications of alcoholism are a group of encephalopathies with a nutritional basis. These are Wernicke's encephalopathy and Korsakov's psychosis. Finally hepatic encephalopathy as a complication of cirrhosis will be encountered occasionally.

The need to calm excitement in those suffering from withdrawal effects prompts many physicians to use barbiturates or paraldehyde. It is now generally accepted that newer psychotropic drugs are more suitable. Chlordiazepoxide Hydrochloride (Librium®) 50 to 100 mg IM or IV repeated as IM injections twice daily on the first day, and then followed by 25 to 50 mg p.o. three to four times daily for five days is a popular regime. Diazepam (Valium®) is equally popular. In states of acute anxiety and tension 5 to 10 mg may be given slowly IV or IM. Not more than 30 mg should be given in an eight hour period. After acute distress is relieved, 5 mg four times daily is sufficient as a maintenance dose. Neither of these drugs should be continued beyond the period of manifest symptoms and particularly so in alcoholic patients because of their predisposition to habituation and dependence. The drugs should be tapered off gradually.

Sleep is essential for alcoholic patients both in the withdrawal stages and during the subsequent months before a natural sleep pattern is reinstituted. Flurazepam Hydrochloride (Dalmane®) which does not suppress REM sleep is particularly well suited and rarely causes morning drowsiness. If seizures occur diphenylhydantoin (Dilantin®) 250 mg may be given IM, then 100 mg q.i.d., by mouth. Some people question the value of continuing anticonvulsant medication after the initial burst of seizures has subsided. Most delirious and tremulous patients in a state of withdrawal will require fluids to be pushed by mouth. If necessary, fluid balance and caloric requirements must be maintained by intravenous glucose and saline. Electrolyte disturbances if present must also be corrected and multiple vitamins are given routinely by injection.

Acutely ill alcoholics are prone to infections, pancreatic and liver disturbances, fat embolism and undisclosed injuries. These latter conditions must always be kept in mind even in the apparently uncomplicated case. Even the most complete diagnosis and medical prescribing is of little value without sensible and patient nursing care. Patient cooperation is essential and restraints should rarely be used. Good lighting, frequent reassurance by staff who are familiar to the patient and avoidance of unnecessary restrictions and routines are advised.

When the patient has been restored to a state of stable physiologic and mental functioning—and this may take many weeks—it is the obligation of the physician to adequately inform the patient of his condition and the need for further treatment. This will involve a commitment by the patient to the need for sobriety and acceptance of a program which will help to maintain it.

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4. Victor, M. and Adams, R.: Effect of alcohol on nervous system. In: Metabolic and toxic diseases of the nervous system. Res. Publ. A. Res. Nerv. & Ment. Dis., 32:526, 1963.
5. Mendelson, J. H. (Ed.): Experimentally induced chronic intoxication and withdrawal in alcoholics. Quart. J. Stud. Alc., Supplement No. 2, 1964.

Radiology Window

by ENRIQUE CUBILLO, M.D.

CASE NO. 1

These films are of a 19-year-old male with moderate hypertension and systolic murmur. The differential diagnoses are as follows: (1) Aortic Insufficiency, (2) Aortic Stenosis, (3) Coarctation of the Aorta, or (4) Hypertensive Heart.

Please make your judgment and turn to Page 202 for information as to the correct diagnosis.

This radiologic feature has been prepared and provided by Enrique Cubillo, M.D., who is associated with the Department of Radiology at Mercy Hospital in Des Moines.

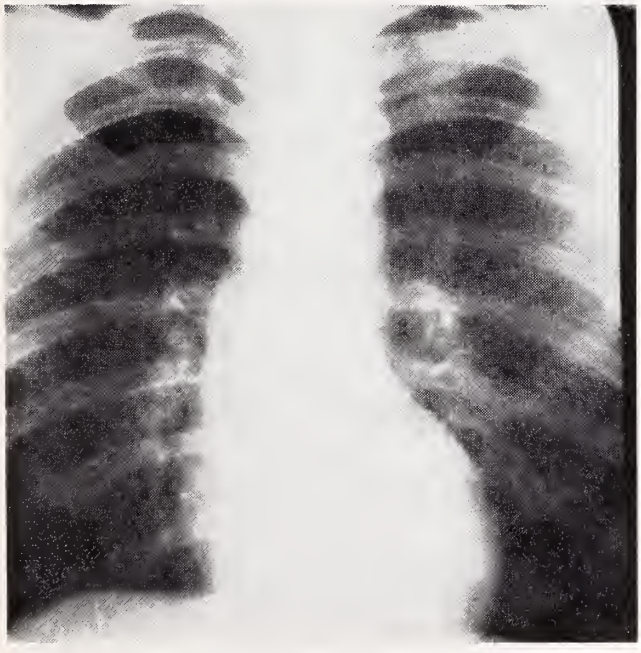


Figure 1. PA chest.

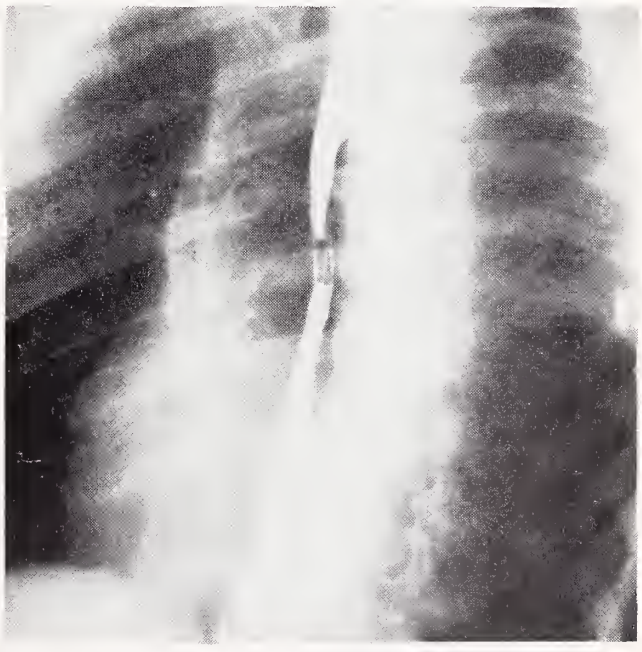
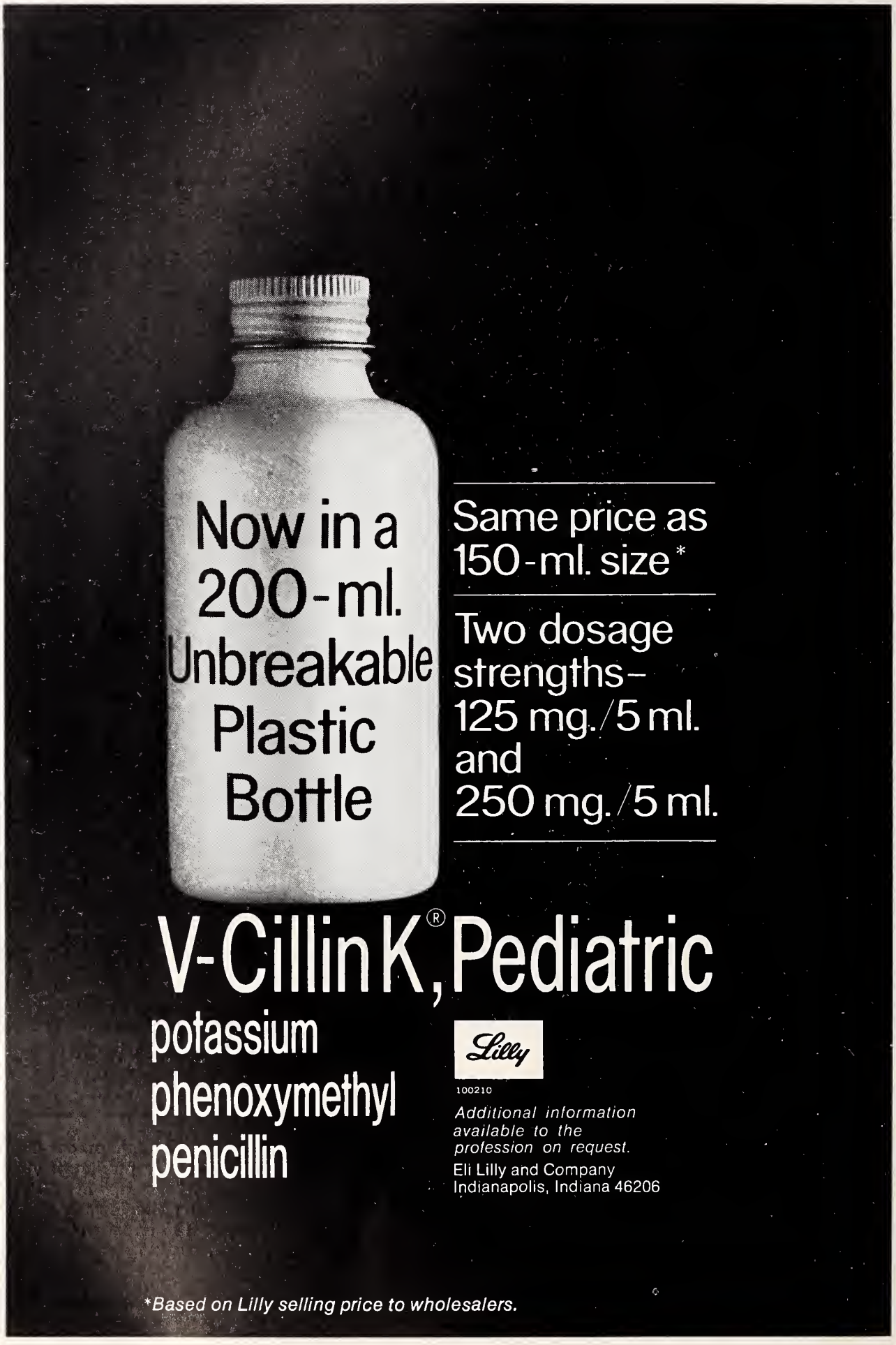


Figure 2. LAO chest with barium.

HAWKEYE SCIENCE FAIR

A Spring tradition now in its 14th year, the Hawkeye Science Fair occurs April 7 and 8 at the Veterans Memorial Auditorium in Des Moines. This widely-known science education project affords Iowa junior high and high school students the opportunity to present for public viewing the exhibits which they have developed over the year. The event is sponsored by the Iowa Medical Society, the Scanlon Medical Foundation/IMS, Drake University and the DES MOINES REGISTER AND TRIBUNE.


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SCIENTIFIC ARTICLES

Hyperlipidemia: A Brief Review

RALPH R. PRAY, M.D.
Iowa City

In recent years reports have shown that several factors are correlated statistically with an increased risk of coronary heart disease. Hyperlipidemia is one of these factors. In this paper, the five types of Primary Hyperlipidemia are reviewed.

RISK FACTORS IN ISCHEMIC HEART DISEASE

Certain variables are quantitatively assessable and may be mathematically correlated with an increased risk of ischemic heart disease. The most important of these risk factors are hyperlipidemia, cigarette smoking, hypertension, obesity and diabetes mellitus. These and other risk factors are listed in Table 1. Age and electrocardiographic abnormalities, especially left ventricular hypertrophy, intraventricular block and atrial fibrillation, are correlated with increased risk, as are elevated uric acid levels. Physical inactivity and personality type are significant but less quantifiable factors. Combinations of risk factors portend greater risk than single factors. For example the combination of hypercholesterolemia, hypertension, and cigarette smoking carries ominous significance, even more as age increases.

HYPERLIPOPROTEINEMIA

Most causes of primary hyperlipoproteinemia may be diagnosed by determining the serum triglyceride and cholesterol concentrations and inspecting the serum for the degree of visible lipemia in the fasting state. Special studies which may be done include serum lipoprotein electrophoresis and ultracentrifugation. The value of these determinations in making the proper diagnosis is illustrated in Table 2.

TABLE 1

10 INDICES TO INCREASED SUSCEPTIBILITY TO PREMATURE ATHEROSCLEROSIS

1. Age
2. Hyperlipidemia
   a. Cholesterol or LDL (low density lipoprotein) increase
   b. Triglyceride or VLDL (very low density lipoprotein) increase
3. Cigarette smoking
4. Hypertension
5. Obesity
6. Diabetes mellitus
7. Physical inactivity
8. Hyperuricemia
9. Positive family history (premature ischemic heart disease, diabetes, xanthoma, and hyperlipidemia)
10. Electrocardiographic abnormalities

Dr. Pray is a second year resident in Department of Internal Medicine at The U. of I. College of Medicine. Assistance in the article's preparation has been provided by William E. Connor, M.D., professor of internal medicine and director of the Clinical Research Center. The editor welcomes scientific papers from physicians in training. The author is afforded a fine exercise in scientific writing and the reader is given an up-to-date review.

THE SCANLON MEDICAL FOUNDATION/IOWA MEDICAL SOCIETY HAS DESIGNATED THIS ARTICLE AS THE HENRY ALBERT SCIENTIFIC PRESENTATION FOR THE MONTH OF APRIL, 1972.

TABLE 2

HYPERLIPIDEMIA

Type	Appearance of Plasma	Plasma Lipids: Cholesterol	Plasma Lipids: Triglycerides	Lipoprotein Moiety Increased
I	Turbid	↑±	↑↑↑	Chylomicrons
IIa	Clear	↑↑↑	Normal	Beta-lipoproteins
IIb	Clear or faintly turbid	↑↑↑	↑↑	Beta-lipoproteins and pre-beta-lipoproteins
III	Turbid	↑↑	↑	Broad-beta-lipoproteins
IV	Turbid	↑±	↑↑	Pre-beta-lipoproteins
V	Turbid	↑	↑↑↑	Chylomicrons and pre-beta-lipoproteins

In primary hyperlipoproteinemia the plasma lipoproteins are elevated in the absence of modifying conditions. Causes of secondary disorders of lipid metabolism include obstructive liver disease, hypothyroidism, diabetic acidosis, nephrotic syndrome and acute and chronic alcoholism. The secondary hyperlipidemias should not be confused with any of the five types of primary hyperlipidemia.

Type I Hyperlipoproteinemia. This is a rare condition transmitted by autosomal recessive inheritance and characterized by elevated chylomicrons. The plasma often appears lactescent. This is an exogenous, fat induced hyperlipemia which is due to a defect in the removal of chylomicrons from the plasma. The disease is often diagnosed when a patient presents, usually in the first decade, with eruptive xanthomas, abdominal pain, and/or moderate hepatosplenomegaly. The treatment is dietary. Reduction of fat intake to 15 per cent or less of the total caloric intake usually provides relief from xanthomatosis and abdominal pain, although the patient's serum may remain moderately hyperlipemic. If a higher fat intake is desired, medium chain triglycerides may be used, because these are absorbed through the portal system and not via chylomicrons. No drug is effective in correcting the defect in chylomicron removal.

Type II Hyperlipoproteinemia. This is a common condition transmitted by autosomal dominant inheritance and characterized by elevation of the serum cholesterol or beta-lipoproteins, also called low density lipoprotein. The plasma is classically clear. Now Type II is subdivided into two subtypes, IIa and IIb. In both the low density lipoproteins, or beta-lipoproteins (cholesterol), are elevated. In IIa the very low density lipoproteins, or pre-β-lipoproteins (triglycerides), are normal; in IIb they are elevated. Serum cholesterol levels above 220 mg per cent in young men are statistically associated with a greater incidence of premature atherosclerosis.

The treatment is to change the patient's diet to contain less cholesterol and saturated fat. Increasing the amount of polyunsaturated fat and reducing the dietary cholesterol to less than 200 mg daily almost always results in a 15 to 25 per cent reduction in the plasma cholesterol. Foods to be avoided include: eggs, whole milk, cheese, butter and fatty meats such as marbled steaks, organ meats and some luncheon meats. The effects of diet on the serum cholesterol should be evident within a month, then it may be necessary to start drug therapy.

Cholestyramine in doses of 4 to 8 gm one-half hour before meals and at bedtime lowers serum cholesterol by binding bile acids and inhibiting their reabsorption; the drug itself is not absorbed. This drug has a somewhat unpleasant taste. A high frequency of mild gastrointestinal side effects including constipation is associated with its use. It is the most effective drug for treating Type II.

Other measures used in the treatment of beta-lipoprotein disease include clofibrate, β-sitosterol, niacin and dextrothyroxine. Clofibrate is not usually helpful. β-sitosterol (Cytellin) is an aqueous emulsion of soy sterols which is given in doses of 30 ml one-half hour before meals and at bedtime; this substance inhibits cholesterol absorption. Niacin is used occasionally but sometimes causes nausea.

Dextrothyroxine may be tried in refractory cases but may aggravate ischemic heart disease by causing angina pectoris or even more serious problems, especially if improperly used. In the treatment of Type II it may be necessary to implement two or more pharmacologic measures in addition to a therapeutic diet.

Type III Hyperlipoproteinemia. This is an uncommon familial disorder which is apparently transmitted by an autosomal recessive gene. These patients' plasma contains an abnormal very low density lipoprotein of beta electrophoretic mobility. There is a broad beta-lipoprotein band on paper electrophoresis. Most of these patients have xanthomas, many have intermittent claudication, and some have premature heart and cerebrovascular disease. The majority have diabetes mellitus. Type III is very responsive to diet and drug therapy. The first step in treatment is to put all obese patients on a low-calorie diet until they reach a normal weight. Then they should be maintained on a diet low in cholesterol and saturated fat with a normal or slightly decreased total fat content. If diet alone is not sufficient, clofibrate will usually further reduce the plasma lipids to normal or nearly normal limits.

Type IV Hyperlipoproteinemia. This is a common malady which is transmitted in different ways as relatives may have Type III or Type V disease. Some cases are transmitted by autosomal dominant inheritance. This lipoprotein pattern may also be found in patients with acute or chronic alcoholism as well as other metabolic diseases. Type IV hyperlipidemia is characterized by increased plasma triglycerides and very low density lipoprotein of pre-beta electrophoretic mobility. The plasma is turbid.

This disease is usually discovered in middle-aged patients after the onset of ischemic heart disease. Arcus senilis, xanthelasma and xanthomas may occur.

Since Type IV is "induced" by caloric excess, the most important therapeutic measure is a low calorie diet for weight reduction. If necessary clofibrate may be added to the regimen. The drug has a variable effect so the response must be monitored by rechecking plasma lipids at intervals.

Type V Hyperlipoproteinemia. This is an uncommon condition which is transmitted in various ways as relatives may have Type IV patterns. Type V may be a recessive trait, but the exact mode of inheritance is unclear. The plasma is turbid or milky. This is a mixed hyperlipidemia in which chylomicrons and pre-beta-lipoproteins are present in excess; there is a defect in the metabolism of both endogenous and exogenous triglycerides.

The Type V pattern may be induced by dietary excess in patients with Type IV disease because of oversaturation of the glyceride-clearing mechanism. The Type V pattern may also be seen temporarily with insulin deficient diabetes mellitus, acute or chronic pancreatitis and alcoholism.

Type V disease usually occurs in overweight adults who have diabetes mellitus and/or a family history of diabetes. They usually present with bouts of abdominal pain which are often accompanied by elevations in the serum amylase level. Exploratory laparotomy is often done because of this pain. Milky peritoneal fluid and sometimes chalky deposits on the pancreas may be found at operation. These patients often develop acute pancreatitis, but if hyperchylomicronemia can be eliminated, then pancreatitis can be prevented. Patients occasionally complain of paresthesias or painful extremities. Eruptive xanthomas, hepatosplenomegaly and lipemia retinalis may be present.

These people should be given a weight reduction diet to effect reaching ideal body weight. The diet should be adjusted empirically to avoid excessive intake of fat and calories. Patients should not drink alcoholic beverages. If weight reduction and adjustment of the diet are not sufficient, the addition of clofibrate often reduces the plasma lipids to normal or nearly normal levels.

SUMMARY

Hyperlipidemia is one of several risk factors which are correlated statistically with an increased risk of ischemic heart disease. Other important factors are cigarette smoking, hypertension, obesity and diabetes mellitus.

There are five types of primary hyperlipidemia. These may be detected and differentiated from one another by serum cholesterol and triglyceride determination, inspection of se-

rum, ultracentrifugation and lipoprotein electrophoresis. Treatment is different for each type of hyperlipidemia. This usually involves weight reduction, a decrease in cholesterol and saturated fat intake, redistribution of calories and pharmacologic measures.

ACKNOWLEDGEMENT

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A Pediatrician Rides an Iowa School Bus

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THE FAMILIAR YELLOW SCHOOL BUS has been relatively exempt from participating in our shocking national motor vehicle carnage. Respect for the school bus, laws which prevent passing stopped buses, travel during relatively low traffic density hours, selection and training of drivers, school bus construction standards and regular maintenance schedules all contribute to the low school bus accident rate. Still, according to the National Safety Council,[1] about 140 persons, including 75 pupils and 5 bus drivers were killed in school bus accidents in 1969. Of the 75 pupils killed, 25 were bus passengers and 50 were pedestrians approaching or leaving the bus. How many of these deaths occurred in Iowa? How relatively safe is it to ride a school bus in Iowa? Are Iowa's school bus safety standards adequate? What role does the Iowa physician have in school bus accident prevention?

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SCHOOL BUS ACCIDENTS IN IOWA, 1969-70

There were three fatal accidents involving school buses during the 1969-70 school year. A school bus and car collided at a country road intersection, killing one bus passenger. This was Iowa's first pupil fatality to occur inside a school bus in over 20 years. A second fatality occurred after a child was discharged from a bus and had safely reached her driveway. She was run over by the rear wheels of the bus when she ran back for a paper the wind had blown under the bus. The third fatality involved a truck driver who was killed avoiding a collision with a stopped bus.

There were 417 public school bus accidents in Iowa during the 1969-70 school year. During this time, 56,872,576 miles were logged by 6,629 vehicles. Twenty of these accidents occurred on "activity trips." One hundred and eight of the 417 accidents (26%) involved less than $100 in property damage and no personal injury was sustained. Three hundred and forty-two of the 417 accidents (82%) did not result in personal injury. Seventy-five accidents resulted in personal injury or death to 203 passengers, 13 school bus drivers and 56

motorists or their passengers. Two pupils suffered broken collar bones, one a broken leg and one a broken wrist. The injuries to the remaining 199 passengers were only minor cuts or bruises. One hundred and twenty of the 203 injured pupil passengers sustained their injury in six accidents.

Bus drivers had worse luck than their passengers. Eight of the 13 drivers injured subsequently became disabled. Injuries included a broken pelvis, a broken arm and various chest, back and arm bruises.

SCHOOL BUS ACCIDENTS IN IOWA, 1959-70

The number of school bus accidents in Iowa has been steadily rising. (Chart 1-A) An increase in the number of buses (1-B), annual bus mileage (1-C), bus routes (1-D) and pupils transported (1-E) for the 1959-60 to 1969-70 school years is related to this higher number of school bus accidents. Other factors, such as generally increased traffic density, may also be operative. Between 1959 and 1969 the number of buses increased 25 per cent, while bus mileage, bus routes and pupils transported went up to 33 per cent, 22 per cent, and 25 per cent, respectively. School bus accidents were up 27 per cent for the same period.

SCHOOL BUS ACCIDENTS—IOWA AND THE NATION

In the January 1970 supplement to PEDIATRICS,[2] a national survey of school bus accidents was reported for the 1964-65 or 1965-66 school years. During the 1964-65 school year, there were 346 school bus accidents in Iowa with 92 pupil injuries and one death. A total of 138 injuries and four deaths were reported. A comparison of these data with those from four of Iowa's neighboring states, for the same time period, is presented in Table 1. Illinois reported 565 accidents with incomplete records of 60 injuries and two deaths. Minnesota had 311 accidents with 327 injuries and four deaths. Forty-three accidents with only 19 injuries and one death were reported in Nebraska, and 336 accidents with incom-

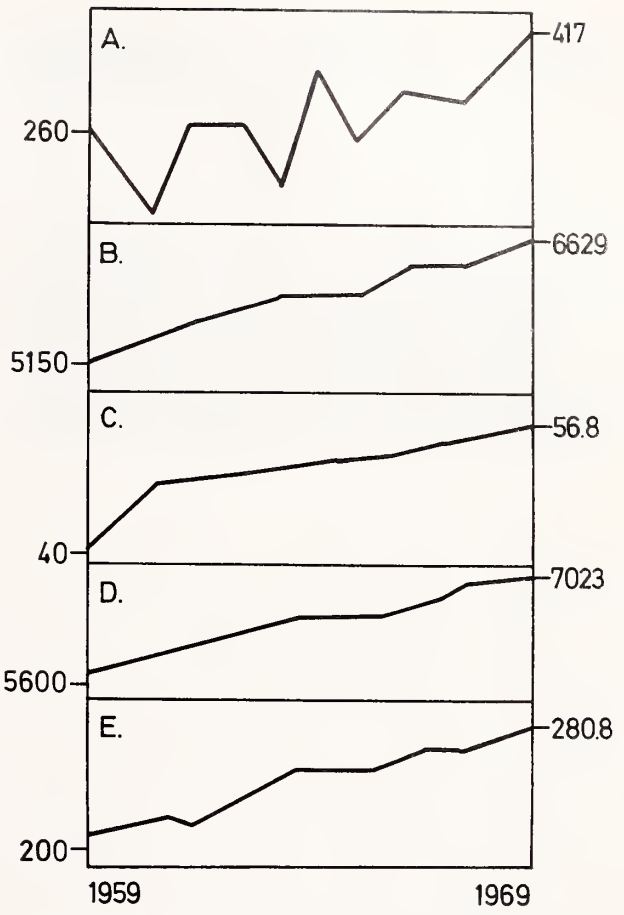


Chart 1. School Bus Transportation and Accident Trends in Iowa for School Years 1959-60 through 1969-70: A. School bus accidents, B. Buses, C. Annual bus mileage in millions of miles, D. Bus routes and E. Pupils transported daily in thousands.

TABLE 1

SCHOOL BUS ACCIDENTS IN IOWA AND SURROUNDING STATES FOR THE 1964-1965 SCHOOL YEAR

State	Pupils Transported	Annual Mileage (In Thousands)	Accidents	Pupils Injured	Pupils Killed	Total Injured	Total Killed
Iowa	263,991	52,244	346	92	1	138	4
Illinois	520,449	68,586	565	40	1	*	*
Minnesota	379,542	56,165	311†	327	4	*	*
Nebraska	55,000	18,000	43	*	*	19	1
Missouri	458,813	55,090	336	93	0	*	*

* Information incomplete.
† Calendar year 1965.

TABLE 2
ACCIDENT RATES PER PUPIL AND MILES TRAVELLED

State	Pupils Accidents	Mileage Accidents
Iowa	762*	151,000†
Illinois	921	74,000
Minnesota	1,220	181,000
Nebraska	1,279	418,000
Missouri	1,365	163,000

* 1 accident per 762 pupils transported.
† 1 accident per 151,000 miles travelled.

plete records of 172 injuries and two deaths occurred in Missouri.

The accident rates relative to miles traveled and pupils transported was calculated from the data in Table 1 and are presented in Table 2. These figures are calculated from total bus mileage which includes travel without passengers and extracurricular trips. Average occupancy for total bus mileage is generally 40 per cent of capacity with extracurricular mileage averaging eight per cent of the total.[1] Iowa had the highest number of accidents per pupil carried, or one accident for every 762 pupils, nearly twice that of the state with the lowest number, Missouri. Iowa was second highest in accidents per miles traveled, with one accident for every 151,000 miles. Nebraska, with the most favorable record, had one accident for every 418,000 miles traveled.

THE IOWA BUS DRIVER

The State of Iowa Department of Public Instruction has regulations and guidelines for school bus drivers.[3] Minimum age for a bus driver is 16 years, if the driver has completed an approved driver education course. A maximum age of 65 years has been established, although this may be waived upon "application by the local board of education and evidence of a satisfactory physical" for one more year. To qualify as a school bus driver, a chauffeur's license is required, and a special school bus driver's written examination and bus operation test must be passed. Driving records should be "acceptable," and physical fitness determined by examination. Physical standards of strength, visual acuity, blood pressure, intelligence and hearing are set by Iowa State Law. Freedom from mental and certain physical diseases, as well as adequate mental alertness and intelligence, is required. All drivers must have at least a *yearly* physical examination; the 65-year-old driver must have a semi-annual physical examination. Experience handling large vehicles and a thorough knowledge of traffic laws and regulations are desirable. Tests of reaction time, depth perception, night vision and visual fields are recommended. Bus drivers must adhere to the route outlined by the local board of education and a daily bus inspection by the driver is recommended for all operating and safety equipment.

IOWA SCHOOL BUS LAWS

Section 321.372 of the Code of Iowa provides guidelines for the school bus drivers relative to signaling and the unloading and loading of passengers. Rules for drivers approaching a school bus, passenger seating on the bus and passenger load are stipulated. Amended Section 321.377 of the Code of Iowa defines bus speed limits. Section 321.343 requires all school buses to stop before proceeding across railroad crossings. Only standard school buses may stop on the highway. It is recommended that a driver not put a misbehaving child off the school bus at a point other than his appropriate stop.

THE BUS

The adoption of federal safety standards for private vehicles began in 1966. National minimal standards for the construction of school transportation equipment have existed since 1939. These standards have been revised frequently; the last revision was in 1970. Individual states use these standards as a guide to developing their own.

Iowa law provides for all new school buses to be inspected to assure they meet state standards. Yearly inspection of all buses is also required. The responsibility for inspection is shared by the Iowa Highway Patrol and the Department of Public Instruction. Chapter 285 of the Iowa Code gives the Department of Public Instruction responsibility for adopting uniform standards to govern construction of the equipment used in the transportation of school children. The 1968 standards[4] of bus construction cover everything from lighting, safety devices, glass, body, chassis and power train, to undercoating and the gasoline cover cap. The 1968 Iowa regulations required padding above the exit door, on seat rails, stan-

chions, and driver guard rails of all new buses. Seat belts for drivers are required on all buses after the 1966 model. Buses must have cross view mirrors to give adequate vision of passengers crossing in front of the bus.

THE PASSENGERS

There are no state laws regarding the behavior of school children on buses. Guidelines for appropriate behavior on the school bus are outlined under "desirable pupil behavior" in the State Supervision of the School Bus Driver manual.[3] It is suggested that local boards of education require administrators to establish "rules of conduct for bus passengers."

According to this manual, "an informal atmosphere which encourages pupils to relax and enjoy the ride is desirable." Pupils should move without haste, crowding or pushing. The noise level should not distract the driver. Pupils must go directly to their seats and remain seated while the bus is in motion. Roads should be crossed by the passengers in accordance with the Iowa Code, and school bus property must be protected. Although the bus driver is responsible for supervising and controlling children along the bus route, "the teacher must train and instruct children about school bus behavior." When a child misbehaves transportation privileges may be withdrawn from the pupil by the school administration.

A SCHOOL BUS RIDE

To obtain first-hand information about behavior on a school bus, the author obtained permission to ride an Iowa City school bus in the Spring of 1970. The children picked up along the route were kindergarteners who had been riding the bus since September. The driver was a university student and the bus was one of the newer models in the Iowa City system. Photographs of the bus interior are seen in Figures 1-3. The narrow aisle and unpadded seat rails are apparent in Figure 1. The lack of protection to the driver and front seat passengers is seen in Figure 2. In Figure 3 the seat belt, required by law, is not fastened to the floor.

To fully appreciate the experience, one must listen to a tape of the trip. The sound began as a duet between the first two passengers and reached a deafening cacophony by the time the last of the 25 children had entered

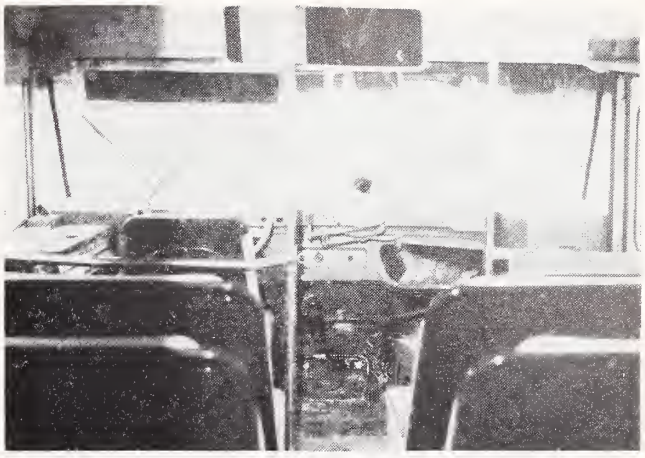


Figure 1. Inside a school bus. Unpadded vertical rails and seat backs offer no protection to passengers.

the bus. Some of the behavior of the children can be seen in Figures 4-7. The child seen in Figure 4 entered the school bus with a mechanical submachine gun whose sound was quite realistic. The driver's calls for quiet were lost in the screaming and singing as children entered the aisles and wrestled in their seats. The finale was a crescendo rush to the door. The driver, who was unperturbed by the experience, claimed this was a typical day!

DISCUSSION

A realistic comparison of Iowa's school bus

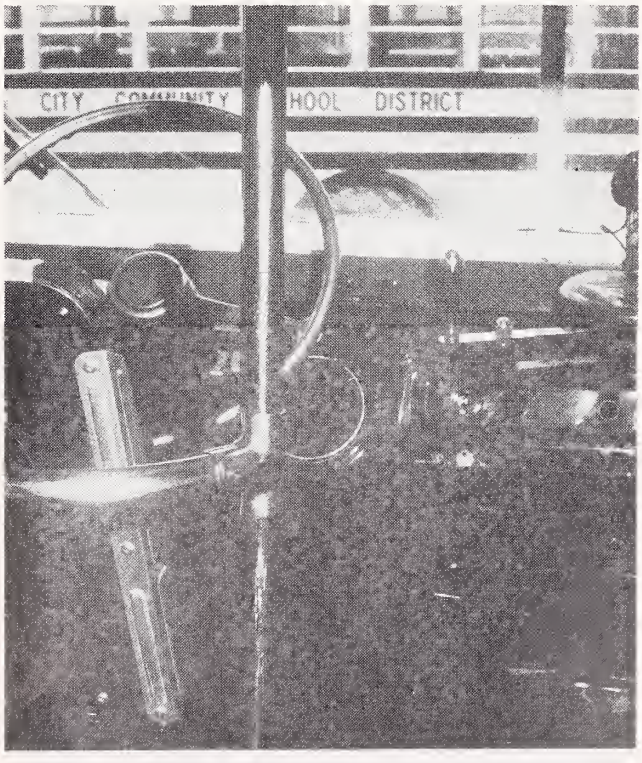


Figure 2. The school bus driver's seat. There is no protective padding in front of the driver's seat. The steel door control arm looms menacingly in the aisle.



Figure 3. The seat belt. The driver's sole source of protection lies unused and unattached to the floor.

accident rates with surrounding states may not be feasible.[5] States vary in the numbers of children transported, miles traveled, topography, population, traffic density, laws, etc. The article[2] from which the statistics used in Table 2 are derived did not define accident or injury and states vary in defining reportable accidents. For example, 80 of the 346 accidents listed for Iowa involved property damage of less than $100 and no personal injuries. The majority of other states do not require these accidents to be reported.

Only one accident per 197,000 miles is calculated if these accidents are subtracted, making Iowa's record better than that of the four surrounding states. On the other hand, it is possible that the relatively high number of 327 pupils injured in Minnesota resulted from a higher reporting rate.



Figure 4. The passengers. A child with a machine gun adds to the din of activity.

A comparison of the accident rate per pupil transported, which does not consider the number of miles traveled, may make primarily rural states appear to have higher accident rates. School bus accident statistics are maintained quite meticulously in Iowa. Nine of the states surveyed by Seymour Charles[2] did not supply accident data and information was incomplete in 21 others.

If rules for the selection of school bus drivers were applied to all of Iowa's drivers, this would undoubtedly lower automobile accident rates. Iowa physicians are aware of the importance of school bus driver examinations. Problems which may interfere with driving safety, which are overlooked in qualifying private passenger vehicle drivers, must not be overlooked in selecting drivers for public transportation, especially school buses.

The employment of drivers under 16 years of age is open to controversy. Drivers are difficult to obtain for school buses; the job is part-time, and the pay is certainly not commensurate with the responsibilities. Although Seymour Charles[2] recommends that school bus drivers be between 25 and 60 years of age, 16 to 18 year old drivers have fewer school bus accidents than older drivers.[6]

High noise levels on school buses are not entirely the fault of the passengers. In a train-bus accident in Nebraska, in which four children were killed, the driver claimed bus engine noise drowned out the train's warning horn and bell.[7] An unpublished study by W. A. Boland[8] determined that school bus noise levels, on the road, fluctuated between 80 and 125 decibels. Car horns and police sirens were inaudible inside the school bus and children had to shout to be heard above the din of the bus. After citing the known deleterious effects of noise levels above 90 decibels on worker performance, Boland theorized that behavior of the school bus driver, and his passengers, could also be adversely affected.

Standards for padding the interior of the school bus were adopted nationally in 1970. Iowa has required padding since 1968, how-

ever, this is only for newly constructed buses. Proved safety devices should certainly be required on all buses, regardless of age.[9] Seat belts must be worn by all drivers. More drivers than passengers appear to sustain injuries in bus accidents, and an injured driver can be of little assistance to his passengers after an accident. Seat backs and protruding objects must be padded appropriately and all passengers required to wear seat belts. To guarantee that belts are worn, to help children on and off buses, and to maintain order, adult monitors are needed on buses transporting younger children. It is possible that selected and trained high school students could serve this purpose. Physicians should act as consultants to local school bus systems to advocate (1) the use of safety devices and (2) the conduct of local training programs for children and drivers.

Many school bus safety films are available for school age children.[10] It is obvious that children should be schooled in proper vehicle behavior *before* riding on school buses on a regular basis. Counselling on appropriate behavior in motor vehicles should become part of routine well baby care. This should begin with physicians encouraging parents to use appropriate physical restraints for infants. Preschools should have classes in proper school bus behavior. Programs aimed at modifying school bus behavior for drivers and children of various ages have been suggested.[11]

Since most passenger fatalities in Iowa have occurred before or after entering the school bus, safety training should include appropriate behavior for approaching, boarding and leaving the bus. Parents should be encouraged to accompany younger children to and from the school bus door. The boy in Figure 4 should not have been allowed on the bus with his noisemaker. Certainly, no child who chronically misbehaves on a school bus should be allowed to endanger the lives of other children. Schools, whose jurisdiction over the child includes his presence in the school bus, must have authority to exclude misbehaving children from buses. Reinforcing this authority is a responsibility of the consulting physician. It is possible that chronically misbehaving children may have additional problems and may be in need of referral to the school psychologist and/or a physician.



Figure 5. The passengers. A girl near the front seat of the bus chats in the aisle with a friend while the bus is in motion.

Over one-half of Iowa school bus accidents are due to school bus driver failure. Mr. Arthur Roberts, Director of Iowa's Division of Transportation, believes the weakest segment of the Iowa pupil transportation program is the training of drivers. Mr. Roberts found only 10 per cent of the schools in one of Iowa's 16 areas had any type of drivers' training. There are no standard methods whereby drivers' skills may be evaluated. In the Spring of 1970, a federal grant of $75,365 was given to the State of Iowa by the U.S. Department of Transportation for the purpose of establishing a pilot driver training and evaluation program. This program has been established at the Iowa Central Community College, Area V, Fort Dodge, Iowa.



Figure 6. The passengers. Disembarkation at school noisily concludes the bus run.

It would appear the State Department of Public Instruction, through its Transportation Division, is making headway in improving the school bus safety record in Iowa. Iowa physicians have a role to play in school bus safety by supporting safety programs at the local level, counseling parents and screening out inappropriate drivers. Physicians should ride a local school bus filled with elementary school children. A great deal of information about buses and pupil behavior and management will be gained from a short, and perhaps, wild ride.

SUMMARY

School bus accidents are increasing in Iowa. The physician has a role to play in aiding local and state efforts to improve school bus safety. This can be accomplished by:

1. Continued careful screening of school bus drivers.
2. Including counseling about motor vehicle safety for children, starting with well baby visits.
3. Promoting the use of appropriate safety restraining devices in motor vehicles for all passengers.
4. Acting as a consultant to the school with respect to children who chronically misbehave on the school bus.
5. Advocating safer and quieter school buses.
6. Supporting mandatory passenger and driver bus safety training programs.
7. Promoting the use of monitors on buses which transport young children.
8. Suggesting to school officials that parents of young children be required to accompany their children to and from the school bus door.
9. Promoting emergency evacuation drills.
10. Providing first aid training for school bus drivers.

ADDENDUM

The school bus accident report for 1970-1971 was released in December, 1971. Four hundred forty-six public school bus accidents were reported, an increase of seven per cent over the preceding school year. Although the number of accidents increased, there were fewer injuries and no fatalities. The school bus driver was responsible for 239 or 53.6 per cent of the accidents. Mechanical failure accounted for only four or .9 per cent of the accidents.

On December 17, 1971, a car and a bus collided at an intersection near Archer, Iowa. Three people were killed; the driver of the car, his passenger and the 17-year-old bus driver. Six students were injured.

ACKNOWLEDGEMENT

I would like to express appreciation to Arthur Roberts, Director of the Division of Transportation, Iowa State Department of Public Instruction, for his encouragement and expertise. Mr. Roberts provided the Iowa school bus accident statistics used in this report.

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How to Start Using The Problem Oriented Medical Record

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Since 1969, when L. L. Weed published his book on improving medical records by using the Problem Oriented approach, there has been a minor but definite revolution in medical record keeping.[1] Many Departments of Medicine, and virtually all Departments, Divisions and Residencies in Family Practice are using or planning to use this record keeping system. The Problem Oriented approach to medical record keeping has been demonstrated to the medical students at the University and VA Hospitals in Iowa City. They are first exposed to the method during the sophomore year in the Introduction to Clinical Medicine Course of the Departments of Family Practice and Internal Medicine.

The reader who wishes to explore the Problem Oriented Medical Record (POMR) in greater depth is referred first to *Problem Oriented Practice* by Cross and Bjorn,[2] and then to the above mentioned book by Weed. We think these and other previous publications on the POMR have tended to give the impression of excessive complexity in initiating the system in an office practice.[3-5] The purpose of this article is (1) to introduce the practicing physician to this type of record, (2) to help him begin to use it in his own practice and (3) to dispel this common misconception of difficulty.

The POMR proponents feel the medical record should be central in the scheme of each person's medical care, and that it should be an organized, scientific document reflecting the subjective thinking of the patient as well as the physician's logic and the therapy used. Problem Oriented means just that. The medical record of a particular patient is directly related to a numbered, titled and up-to-date list of that patient's problems.

The POMR is a comprehensive, concise, logical approach to a patient's health care, and allows review by both the physician and his colleagues. In this way standards for care may be ascertained, the mechanisms of health delivery improved, and the record becomes an indispensable tool for the physician's education. The good record protects the physician when questions of malpractice arise. This fact is well established and needs no elaboration. Efficient, standardized, comprehensive, systematic medical records make teaching more effective and outpatient research feasible.

It is not possible or even desirable to convert all patient's records simultaneously. A gradual approach is recommended, working on a predetermined number of charts each day, so that office routine won't be upset too much by a new way of doing things. In starting to keep Problem Oriented Medical Records, we need to be concerned with only two things: (1) the Problem List, and (2) a modification of the progress notes.

These two items comprise the backbone of the Problem Oriented Medical Record, but we should consider some modifications which may make our patient's record more meaningful and useful. The total picture of keeping the POMR can be diagrammed as shown in Figure 1. (Reference to these boxes will help to keep things in perspective as we discuss possible modifications.)

DATA BASE

The data base is the basic information needed for good medical care of every patient. In-

The authors are associated with The U. of I. College of Medicine. Dr. Bryan is an associate professor in the Department of Family Practice and is director of the Oakdale Family Practice Office. Dr. Summers is an assistant professor in the Department of Internal Medicine.

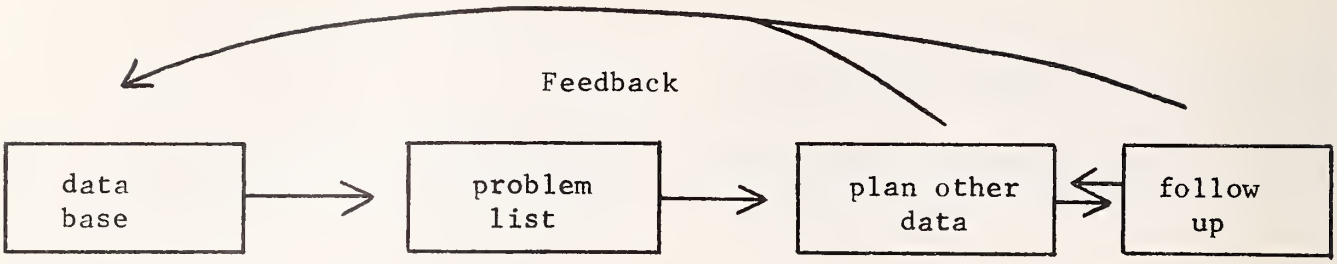


Figure 1

cluded are the history, whether conventional, self-administered or automated; and the physiological data consisting of physical findings, laboratory, x-ray results and special information (pediatric, Ob-Gyn, etc.). Other data which can be very useful includes tabulated lists of medications, immunizations, consultations and hospitalizations (see Figure 2). Sociodemographic data should always be thoroughly recorded and considered integral to the Data Base. If an isolated finding in the history, or the physiological-lab data cannot be explained, it becomes a problem and should be listed on the Problem List until it can be properly related to the entire picture.

In spite of all the possibilities for reorganizing methods of handling the Data Base, changing over to the POMR is not dependent on these modifications. In fact, we suggest that the Problem List be used and the Progress Notes be modified before making any other changes in your present method of record keeping.

PROBLEM LIST

This is the numerically listed and logically arrived at result of utilizing the Data Base to which the future management of the patient will always be related.

In general, problems fall into about five categories. These are:

(1) Definite diagnoses—either new or old.

(2) Symptoms or patho-physiologic states which usually are related to diagnoses but which require special therapy—i.e. arrhythmia or congestive heart failure.

(3) An isolated positive physical finding or an isolated lab or x-ray finding.

(4) Socio-demographic problems such as divorce, bankruptcy, health hazards, etc.

(5) Psychologic or psychiatric problems.

Arrange the Problem List in a manner similar to the one shown (Figure 3), and place it in the front of each patient's chart. When the patient is seen, construct the Problem List from those problems presently being treated and those which have been treated in the past. A good office aide or office nurse can frequently do this for you with some training and practice.

When listing problems be sure to number them and show the date of onset and date of resolution. The problem number ever-after should refer only to that problem (even when it has been solved or consolidated with another). As new problems arise or old ones are discovered, add them to the list and consolidate or modify if possible. If adequate information or data has not been collected, then the patient's first problem is *Inadequate Data Base*. When a problem has been resolved, draw an arrow through it and comment on the resolution when indicated.

The Problem List assumes the importance of the Table of Contents or Index of that patient's present illness and past history. It quickly shows any other person involved in the patient's care what problems are being treated as well as associated problems that may be complicating the situation. The Problem List should follow the patient to the hospital and become the theme about which the hospital record is organized.

Temporary or self-limited problems may be handled by entering them on the Progress Note as an *Acute Problem* (without number) and then developing them as outlined in the next section. When the same acute problem keeps recurring, it usually deserves to join the overall Problem List for continuous consideration.

PLAN AND FOLLOW-UP

The two categories of *Plan* and *Follow-Up* are closely interrelated and sometimes indistinguishable. It is here that the "action" of medical care takes place and the proper recording of these proceedings is invaluable. Here we catalog therapeutic trials, obtain additional or special data and write the "game plan" for the health care of the patient.

The Progress Note belongs here and the modification previously referred to is simply one of reorganization. It should be "SOAPed." S is for *subjective* data, the symptoms or information related by the patient; O is for *objective* data, the vital signs, physical, laboratory or radiologic findings; A is for *assessment,* the physician's interpretation of the situation; and P is for the *plan* of management. Each progress note should have at its beginning the number and the title of the problem in question. Progress notes will now resemble the sample shown in Figure 4. It is not necessary to make a new progress note for each problem on each patient visit. The frequency of entries for each problem should be consistent with good care. The numbering and titling of problems on the progress notes facilitates a quick check to see if any problem has been neglected, so that only rarely is a problem overlooked or forgotten.

Flow sheets are diagrammatic representations which may be used to follow up certain chronic conditions and which frequently can augment or substitute for information on the Progress Note.[2, 6]

When the patient is hospitalized and the hospital record has been organized about the Problem List, then it becomes important to organize the Discharge Summary in POMR fashion. This is done by writing a SOAPed summary for each problem on the list, showing developments during the hospitalization. A copy of this then fits into the patient's office record, adding to its continuity.

FEEDBACK

Feedback is obtained by continuous and subsequent examination and reexamination of our recorded logic and therapy, and it is one of the prime compensations for using the Problem Oriented Medical Record. These self evaluations are basic to learning and critical self analysis. Feedback and the subsequent adjustments are essential if we are to keep the Data Base, and thus the Problem List, relevant. We can, by these observations, begin to set standards for diagnosis and care, and thus demonstrate our system of health care delivery.[7-9]

MEDICATION LIST

MEDICATION	DOSE	DATE STARTED	DATE STOPPED	COMMENT
Rauwolfia	120mgm tid	1/15/71	2/1/71	depression
Methyl Dopa	250mgm qid	2/1/71		

CONSULTATION LIST

DATE	CONSULTANT	REASON	COMMENT
1971	E.N. Thomas	Hearing	Otoschlerosis

HOSPITALIZATION LIST

DATE	HOSPITAL	REASON	COMMENT
1962	Mercy	Appendectomy	Dr. Jones

IMMUNIZATION LIST

IMMUNIZATIONS	DATES							
Polio								
DDT								
DT								
Small Pox								
Rubella								
Rubeola								
Mumps								

Figure 2

RESEARCH

An added bonus of this standardized approach to record keeping is that it makes medical data easily available for therapeutic and epidemiologic studies. In the past, research has

NAME: Jane Doe — PROBLEM LIST

No.	E/ICDA	PROBLEM	DATE ONSET	DATE RESOLVED	COMMENT
1	277	Exogenous Obesity	1958		
2	727	Alcoholism -- Husband	1954		
3	218	Essential Hypertension	1966		
4	282	~~Appendicitis~~	~~1967~~ →	1967	Appendectomy
5	134	Reac Depression	1968		Episodic

Figure 3

Date	Prob. No.	Subjective	Objective	Assessment	Plan
2/1/71	3	HYPERTENSION			
		S. Occasional occipital headaches, especially with emotional stress; one or two episodes of dizziness. Worries about having a stroke.			
		O. Blood pressure 190/120, pulse 92, weight 198 pounds (loss of 3 pounds), grade I retinopathy, AI prominent but 4th ICS-MCL.			
		A. No improvement in control of blood pressure—will stop Rauwolfia. This problem is probably related to number 1 and number 2. Rauwolfia may also be contributing to problem 5.			
		P. Methyldopa 250 mgm. qid. Continue weight reduction program. Return in 2 weeks.			
2/1/71	2	HUSBAND ALCOHOLIC			
		S. Patient complains husband abuses her and creates economic difficulties by constantly drinking, especially when at home.			
		O. Husband does misuse alcohol, but drinks only at home. He is abusive in language only, and when drinking. Is very kind to children, does his job and is generally well liked.			
		A. Husband's drinking is definitely related to patient's problems numbers 1 and 5. Patient unable to see her relationship to drinking problem, and husband seeking unrealistic solution to his emotional stress.			
		P. Will try to get patient and her husband to accept counseling by marriage counselor and possibly AA, with other support as needed. May need temporary psychotropic drugs in either patient or her husband.			

Figure 4

depended mainly on in-hospital patient data and the reporting of disease by physicians. The first method is slanted toward the more seriously ill and the latter is notoriously undependable. Once the Problem Oriented Medical Record is in use in a physician's office, it becomes a relatively simple matter to start a system of statistical collection, which enables the family physician to participate in the study of disease. This potential for gathering ambulatory statistics with its resulting implication for improving health care is obvious.

SUMMARY

In summary, we have attempted to outline a systematic, more standardized approach to medical record keeping in the form of the Problem Oriented Medical Record. We feel it is a useful, practical and desirable approach for the physician already in established practice. It provides data which is researchable. The really two essential parts of keeping Problem Oriented Medical Records are: (1) an up-to-date numbered Problem List, placed in the front of the record, and (2) Progress Notes organized by SOAP (see Plan and Follow-Up Section), where each note is related by number and title to an item on the Problem List.

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at

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Mezzanine Floor—Hotel Fort Des Moines

MONDAY, April 24
8:00 a.m.—5:00 p.m.

TUESDAY, April 25
8:00 a.m.—5:00 p.m.

Editorials

M. E. ALBERTS, M.D., Scientific Editor

HI! HO! COME TO THE FAIR!

Well, not exactly the fair, but on April 23-26 the 1972 Annual Meeting of the Iowa Medical Society will occur in Des Moines. The House of Delegates will meet to consider the business at hand. Members will attend the scientific sessions. Will you be among them? The March issue of the JOURNAL contained the program. Look it over again. Does the panel on management of multiple severe injuries interest you? Or the presentations on surgical management of coronary artery disease? Perhaps the "confessions" of Ann Landers at the banquet on Tuesday, April 25 appeal to you.

Much effort is expended by the Program Committee to develop a worthwhile program. All this is done for YOU. April in Des Moines may not be the same as "April in Paris," but the trip could have possibilities. Join us; pick up a few pearls; chew the fat with your colleagues; enjoy some relaxation. Come to the 1972 Annual Meeting of the Iowa Medical Society.—M.E.A.

THOUGHTS ON COURAGE

As the years roll by and the shadows lengthen one finds writing letters of condolence to friends who have lost a loved one occur more frequently. These letters are difficult to write and somehow words to express innermost thoughts and feelings are elusive.

The adjacent short poem by Douglas Mallach conveys a message which most of us wish to express under such circumstances but find our words inadequate. Numerous friends have found Mallach's poem augmented their courage and helped to make the rough places smooth.—DENNIS H. KELLY, SR., M.D.

Courage

Courage is not just
To bare one's bosom
to the sabre-thrust
Alone in daring.

Courage is to grieve,
To have the hurt, and make
the world believe
You are not caring.

Courage does not lie
Alone in dying for a cause,
To die
Is only giving.

Courage is to feel
The daily daggers
of relentless steel
And keep on living.

APRIL TRIBUTE

Each Spring it is a pleasure for the JOURNAL OF THE IOWA MEDICAL SOCIETY to devote an issue to The University of Iowa College of Medicine. In this April issue we pay special tribute to the College of Medicine, its faculty and administration. Your attention is directed to the message from the Dean which appears on page 164.

We are indebted to Doctor Richard M. Cap-

lan for his service at the College in behalf of the JOURNAL. Through his efforts and stimulation the JOURNAL has been provided many excellent scientific manuscripts by faculty authors. We are using this material to the fullest extent possible, our goal being the presentation of quality scientific literature to the medical profession in Iowa.

We are pleased to have the members of The U. of I. medical faculty as our professional colleagues and we appreciate the support which they provide to the JOURNAL.—M.E.A.

LEARNING DISABILITIES

Our society seems to emphasize the attainment of high levels of education; we urge students to work for top grades in all academic endeavors. Competition in our schools is fierce, and not all children are equipped to face the continuing scholastic challenge; some eventually become demoralized in their efforts. The child with learning disabilities often takes a severe mental battering as he tries to move at the same speed as his peers. Parents become concerned for the welfare of these children, and eventually the physician is brought into the picture. The knowing practitioner can give valuable counsel to the parents and the school, but unfortunately the whole matter has been exploited by some misguided individuals. This has caused unwarranted expense and delay in obtaining proper educational programming for some children.

A NEWSLETTER SUPPLEMENT, dated January 1, 1972, from the American Academy of Pediatrics, presents a joint statement from the American Academy of Pediatrics, the American Academy of Ophthalmology and Otolaryngology, and the American Association of Ophthalmology on the alleged relationship between the eyes and learning disabilities. Several statements in this newsletter deserve emphasis. The great proliferation of diagnostic and remedial procedures which imply a relationship between visual function and learning has prompted the three organizations to make these declarations.

Eye care should never be instituted in an isolated manner when a patient has a reading problem. Learning disability and dyslexia, as well as other forms of school under-achievement, require a multi-disciplinary approach—medicine, education and psychology. The incidence of ocular abnormalities is the same in normal achievers as in poor students. These abnormalities, of course, may require usual visual correction.

There is no peripheral defect which produces dyslexia and associated learning difficulties. Eye defects do not cause reversal of printed figures. Consequently, there is no known scientific evidence to support claims that the academic abilities of the child with dyslexia can be improved with treatment based totally on visual training (eye muscle exercise), or neurologic organizational training (laterality training, balance board, etc.). Such pursuits often result in unwarranted expense by hard-pressed parents and often take time that could be better spent in educational endeavors. The teaching of these unfortunate children is the problem of educational science. Medical specialists must assist in bringing the child's potential to the best level, but actual remedial educational procedures remain the responsibility of the educators.

Now, if I have whetted your thoughts enough along these lines, I would like to refer you to a further discussion of learning and language disorders. Bayard W. Allmond, Jr., M.D., and Helen F. Gofman, M.D., present a two-part monograph on this subject in Volume I, Numbers 10 and 11 (August and September 1971) of CURRENT PROBLEMS IN PEDIATRICS. One of their statements adequately places the problem in perspective: "Educators are learning that the answer to this question is not a simplistic device, a single special curriculum or a well illustrated and enticing work book; neither, the medical profession should be warned, does it seem to lie with special medical treatments, creeping and crawling exercises, physical exercises, 'perceptual training,' or orthoptics." Under ordinary circumstances time is better spent when it is directed toward subject matter to be learned, i.e., in the classroom. Let us not demoralize our children any further with academic competition. Learning should be an adventure—some gaining more, others less, but all given a chance.—M.E.A.

Pathology Capsules

by J. H. HABERMANN, M.D.

GASTRIC ANALYSIS

Apart from research and specialized applications, the prime indications for gastric analysis in most institutions lies in the realm of determining gastric acidity and obtaining material for exfoliative cytology and mycobacterial culture. Especially when utilized for acidity studies, the findings are seldom of pathognomonic significance and must be correlated with the history, physical findings, X-ray and hematological data. Furthermore, there is some current variation in techniques of measurement of gastric acid. This consequently has caused some laboratory variance in reporting the results.

With these limitations, when done to determine gastric acidity, the primary interest is usually in the presence or absence of "free" acid. The tube is passed, the initial aspirate is examined for "free" acid, and if present, no further stimulation is required. If not demonstrated, then gastric stimulation by histamine (Histalog) should be effected. The use of test meals (Ewald's, etc.), alcohol and caffeine stimulants ought to be considered obsolete owing to their submaximal ability to stimulate secretions along with their buffering effect on the aspirate.

Interpretation of the results will vary with the type of reporting schema by the laboratory. Ideally, gastric acidity is reported by volume, pH and titratable acidity; however, in many areas, the "free" and "combined" parameters are still employed. Whatever the reporting mechanism, the finding of anacidity following histamine stimulation is associated with pernicious anemia, carcinoma of the stomach, and in somewhat over 20% of healthy people over 60 years of age. Hyperacidity, in contrast, is associated with duodenal ulcers and Zollinger-Ellison syndrome.

The tubeless gastric analysis (Diagnex Blue) indirectly measures gastric acid secretion via a blue dye coupled to a cation exchange resin which is replaced by hydrochloric acid and excreted in the urine. The quantitation of the dye in the urine thus indicates the level of gastric acid activity. This has the advantage of eliminating intubation, however, there is difference of opinion as to its reliability. In many areas, it is employed largely as a screening test and followed by a tube analysis where negative results (no acid demonstrated) are obtained since a significant percentage of these patients will demonstrate the presence of gastric acid with histamine stimulation.

A wide variety of techniques have been described for obtaining specimens for cytological studies including abrasive agents, lavage with enzyme solutions, etc. The particular techniques utilized varies with the institutions involved, and accuracies in excess of 90% have been reported in diagnosing gastric carcinomas.

If the specimen is obtained for mycobacterial studies, it should be collected fasting (preferably early morning prior to food or drink) and immediately delivered to the laboratory for culture since the gastric acidity is detrimental to the bacteria. Acid fast stains of the gastric aspirate are unreliable owing to the presence of saprophytic acid-fast organisms.

This series of review articles is provided by the Iowa Association of Pathologists. This discussion has been prepared by J. H. Habermann, M.D. Dr. Habermann practices pathology at Bethesda General and Mercy Hospital in Fort Dodge.

1972 IOWA MEDICAL SOCIETY ANNUAL MEETING

General Sessions—Monday & Tuesday, April 24 & 25
House of Delegates—Sunday & Wednesday, April 23 & 26

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Journal Book Shelf

BOOK REVIEWS

Pathology, Sixth Edition, ed. by *W. A. D. Anderson,* M.D., F.A.C.P. (St. Louis, C. V. Mosby Company, 1971, $29.50).

As one views the new sixth edition of Anderson's Pathology, with its 424 more pages than the fifth edition, it is hard to keep from saying, "Brother, I haven't even used up the fifth edition yet." However, progress must be served and even if we can't "use it up" at least it is a comfort to know the reference is sitting on the shelf available for immediate use.

As in previous editions, the two volumes are written by 45 authorities under the editorship of W. A. D. Anderson. On occasion the multiple authorship produces some uneveness in emphasis on subject matter and quality of illustrations.

The principal format changes include splitting a former single chapter on "Organs of Special Senses" into two separate chapters, one on "Ophthalmic Pathology" and one on "Upper Respiratory Tract and Ear." Also separate fifth edition chapters on "Blood, Bone Marrow" and "Spleen, Lymph Node and RE System" are a single chapter by a different author in the sixth. The separate chapter on "Pineal Gland" has disappeared in the sixth edition and its material is found in the chapter on "Nervous System."

Many of the chapters in the sixth edition have been rewritten to include more up-to-date material. On the whole, this is a fine basic reference for both students and physicians.—*Wallace Rindskopf, M.D.*

Approach to the Medical Care of the Sick Newborn, by *Sophie H. Pierog,* M.D., and *Angelo Ferrara,* M.D. (St. Louis, C. V. Mosby Company, 1971, $11.50).

A concise well documented text covering a wide range of perinatal problems. Emphasis is on the prevention of fetal and neonatal abnormalities and the early recognition of the infant in distress. The material is arranged in sections, i.e., the organization of newborn services, the care of the infant at risk and the diagnosis of specific disorders and infections.

The section on the clinical significance of abnormal signs and symptoms starts with a graphic portrayal of the condition followed by a clear cut outline of differential considerations, diagnostic approach, physical examination and laboratory aids.

This book will serve as an immediate reference in the nursery unit. An up-to-date bibliography is given with each chapter; this will have to undergo frequent revision in order to keep the material current. Physicians and nurses will find the book a valuable guide in providing care to the sick newborn.—*Charlotte Fisk, M.D.*

Handbook of Psychiatry, Second Edition, by *Philip Solomon,* M.D., and *Vernon D. Patch,* M.D. (Los Altos, Calif., Lange Medical Publications, 1971, $7.50).

A handbook which seeks to embrace an entire field of medical knowledge requires a great deal of artful editing and careful control of those who contribute chapters of text material. The editors deserve praise for their accomplishments in this task. Some 39 chapters, an appendix, a comprehensive index and an additional two-page article on psychiatric emergency routine, all done by 34 different contributors, might tend to create a first-glance impression of superficiality and inconsistency of quality. Actually, this has been quite successfully organized to be just what it is meant to be, a handbook.

The value of a handbook lies in making available useful knowledge which the reader needs. In this respect, the present volume is highly recommended to students and physicians who are not psychiatrists. Especially noteworthy are those sections dealing with the use of medications in a variety of acute conditions, including organic as well as those regarded as functional.—*Sidney L. Sands, M.D.*

Management of High-Risk Pregnancy and Intensive Care of the Neonate, by *S. Gorham Babson,* M.D., and *Ralph C. Benson,* M.D. (St. Louis, C. V. Mosby Company, 1971).

The exciting advances in the care of the high-risk neonate require frequent up-dating, and this book does that. First, the authors identify the broad scope of the problem and provide a base for understanding that high-risk infants can be helped. Then various etiological factors are identified in a systematic fashion before the discussion moves into an actual identification of the individual problem and the management of same. Final discussion covers sequelae, and also the prevention of future similar problems with the individual patient.

The text is forthright—much of it is written in outline form which provides easy access to desired data. This book should be available to any physician caring for the high-risk infant, and certainly as a reference in the intensive-care nursery.—*M. E. Alberts, M.D.*

JOURNAL BOOK SHELF (Continued)

SURGERY AND BIOLOGY OF WOUND REPAIR, by *Erle E. Peacock, Jr.*, M.D., and *Walton Van Winkle, Jr.*, M.D. (Philadelphia, W. B. Saunders Company, 1970, $21.50).

The conscientious surgeon bases his technical approach to wound repair on a sound knowledge of the nature of the tissues involved and the dynamics of the healing processes unique to different and special tissues. This volume concisely deals with just such fundamental knowledge and should be in the hands of all who profess to practice the surgical arts. This is particularly applicable to those whose practice involves trauma due to gross force or burns. No technique of wound reparation can be adequate without knowledge of and respect for the complex processes which healing involves. The authors define these succinctly and then in a series of chapters provide guides to the management of injury to different tissues. Since most severe injuries involve multiple tissues, an understanding of the differences in tissue responses becomes fundamental. The authors have rendered a valuable service in the clarity of their presentation of a difficult subject.—*Sidney L. Sands, M.D.*

BARRINGTON, by *John Rowan Wilson*, M.D. (New York, Doubleday & Company, Inc., 1971, $6.95).

The author is a physician who indirectly comments on Albert Schweitzer via the pages of this novel. Barrington is his hero, and we learn of him through a series of interviews and dramatic visits executed by an attorney who is investigating the history of Barrington for a trust fund.

Barrington shows many similarities to Schweitzer. He leaves a promising research career, and with indomitable spirit and will, moves to a hospital setting that catches the romantic eye of the western world. Other analogies are evident. Barrington was blindly stubborn, almost stupidly illogical at times. His spiritual drive was tainted by an insurmountable ego. Social advances, real needs of native culture in Africa are a blind spot in his intellectual horizon. Yet, to the western appreciation, he embodies sufficient knightly romanticism to fire their starved imagination.

The style is flowing, at times gripping. It is enjoyable reading, and you don't have to read at different levels after a trying day at the office.—*Bernard Diamond, M.D.*

RADIATION PROTECTION STANDARDS, by *Lauriston S. Taylor*. (Cleveland, CRC Press, 1971, $11.50).

The book is a complete monograph of the history and development of the legislation on radiation protection standards from the beginning of the century to 1971.

The book is of great interest to the radiologist, radiology residents and those physicians in contact with radiological techniques. For practical purposes the book has a final table with the 1971 dose-limiting recommendations.—*Enrique Cubillo, M.D.*

THE LOW FAT LOW CHOLESTEROL DIET, Second Edition, by *Clara-Beth Young*, R.D., *E. Virginia Dobbin*, R.D., *Helen F. Gofman*, M.D., *et. al.* (New York, Doubleday & Company, Inc., 1971, $7.95).

This dietetic book is primarily for dieticians. It involved some consultation with professors of medical physics and physiology and an assistant clinical professor of medicine. It was originally written in 1951 and is now being revised. The original book was admittedly dedicated to the principle of low cholesterol diet. The authors have now given some obeisance to the polyunsaturated fats and have included them in their menus. Also, as an after-thought, they have included a chapter on dietary carbohydrates. The book is written primarily in lay terms and so is, therefore, pointed toward the lay audience. Doctors, particularly those interested in diets, and particularly those who pray at the altar of low-fat, low-cholesterol diets would do well to read this book.

The difficulty with a book of this type is that it helps spread the "Reader's Digest" doctrine of "The Low Fat, Low Cholesterol Diet." There are many holes in such a doctrine which the book skims over. One is that fats are not simply made up of cholesterol but are complex entities composed of innumerable fat moieties. For example, the authors mention that the brain contains a lot of cholesterol. They also mention that eggs contain a lot of cholesterol. These statements are true, of course, but greatly misleading in that the brain and egg yolks, in addition to cholesterol, contain many other types of lipids. The reviewer feels strongly that to reduce diets and reduce concepts of fat metabolism simply to "cholesterol" and "unsaturated fats" is misleading to say the least. Some casual mention is made at the end of the book about the role of carbohydrates and starches. It is the reviewer's opinion that these entities will play a much greater role in the next volume of this book. Very little attention is given to the relation of heat to unsaturated fats and to the amount of fat in lean meat.

In summary, this would be a good book for lay people who are concerned about cholesterol in the diet and good for doctors who believe in the Holy Writ that is promulgated here. It is the opinion of the reviewer, however, that such a book is not only not worthwhile but may be damaging to the progress of studies on lipid metabolism.—*Daniel A. Glomset, M.D.*

REVIEW OF MEDICAL PHYSIOLOGY, by *William F. Ganong*, M.D. (Los Altos, California, Lange Medical Publications, 1971, $8.50).

REVIEW OF PHYSIOLOGICAL CHEMISTRY, by *Harold A. Harper*, Ph.D. (Los Altos, California, Lange Medical Publications, 1971, $8.00).

These volumes are reviewed as companion pieces because of their close relationship in content.

The problems inherent in writing any "review" of a massive body of specialized knowledge derive from that which the authors and publishers intend to be the uses of their manuscripts. The Lange Medical Publications reviews attempt to cover extensively the fields as represented by the titles. As such, they could well be regarded as concise compendia for medical students cramming for examination or comprehensive outlines of a given field for the use of sub-specialists attempting to keep abreast of general and field related developments. Such works could also be handy

references for the practicing physician who has more than ordinary curiosity about his patients and the biologic processes manifested in their illness.

In the instance of the above volumes, it is rather likely that the student and the conscientious practitioner might do well to make use of these works. They are well organized and the format permits rapid reference to specific material.—*Sidney L. Sands, M.D.*

HANDBOOK OF POISONING, Seventh Edition, ed. by *Robert H. Dreisbach.* (Los Altos, California, Lange Medical Publications, $6.00).

This handbook is an excellent and remarkably concise reference for acute poisoning.

Many of us are acquainted with much larger texts but Dreisbach's seventh edition is well organized for office use. It gives consideration to poison prevention, emergency treatment and diagnosis, management, as well as the physician's legal and medical responsibility. Also covered are agricultural poisons, industrial hazards, cosmetic and food poisoning, even a section on animal and plant hazards.

The remarkably recent references at the end of each section and the tables and diagrams represent a bonus in the book.

When a book is this complete and still concise the only drawback becomes the small type. This is relatively minor and would not contraindicate purchase of the book for home or office reference use. For those acquainted with previous editions it should be noted that the seventh edition is an improvement over its predecessors.—*Mark Thoman, M.D.*

Books Received

HIGH ALTITUDE PHYSIOLOGY: CARDIAC AND RESPIRATORY ASPECTS, Ciba Foundation Symposium, ed. by *Ruth Porter* and *Julie Knight.* London, Churchill Livingstone, 1971, $3.00.

STRATEGY OF THE VIRAL GENOME, Ciba Foundation Symposium, ed. by *G. E. W. Wolstenholme* and *Maeve O'Connor.* London, Churchill Livingstone, 1971, $4.00.

PATHOBIOLOGY ed. by *Jeff Minckler,* M.D., Ph.D. *Harold B. Anstall,* M.D., and *Tate M. Minckler,* M.D. St. Louis, C. V. Mosby Company, 1971, $12.50.

CURRENT DIAGNOSIS AND TREATMENT by *Marcus A. Krupp,* M.D., and *Milton J. Chatton,* M.D. Los Altos, California, Lange Medical Publications, 1972, $11.00.

PROGRESS IN NEUROLOGY AND PSYCHIATRY ed. by *E. A. Spiegel,* M.D. New York, Grune & Stratton, 1971.

INTRODUCTION TO HEMATOLOGY by *William M. Dougherty,* B.S. St. Louis, C. V. Mosby Company, 1971, $10.50.

CARDIOVASCULAR PHYSIOLOGY, Second Edition, by *Robert M. Berne,* M.D., and *Matthew N. Levy,* M.D. St. Louis, C. V. Mosby Company, 1972, $9.25.

UNDERSTANDING LABORATORY MEDICINE by *Camillo V. Bologna,* M.D. St. Louis, C. V. Mosby Company, 1971, $9.80.

LASERS IN MEDICINE by *Leon Goldman,* M.D., and *R. James Rockwell, Jr.* New York, Gordon and Breach, Science Publishers, Inc., 1971.

RESPIRATORY PHYSIOLOGY, Second Edition, by *N. Balfour Slonim,* M.D., Ph.D., and *Lyle H. Hamilton,* Ph.D. St. Louis, C. V. Mosby Company, 1971, $10.75.

CURRENT CONCEPTS IN DYSLEXIA ed. by *Jack Hartstein,* M.D. St. Louis, C. V. Mosby Company, 1971, $12.00.

PEDIATRIC THERAPY, Fourth Edition, ed. by *Harry C. Shirkey,* M.D. St. Louis, C. V. Mosby Company, 1971, $34.50.

A PRIMER OF ELECTROCARDIOGRAPHY, Sixth Edition, ed. by *George E. Burch,* M.D., M.A.C.P., F.A.C.C., and *Travis Winsor,* M.D., F.A.C.P. Philadelphia, Lea & Febiger, 1972, $7.75.

BLOOD by *Leo Vroman.* Garden City, New York, Doubleday & Company, Inc., 1971, $1.95.

DO YOU REMEMBER WHEN—

The *Physician's Desk Reference* was five-eighths inch thick? That was in 1950. The 1971 model is three times as thick and two-and-one-half times as heavy. It uses 1,032 pages for "Professional Products Information" to describe 2,500 products. In 1950 there were 138 pages for 1,300 products.

Under, "Antibacterials," the 1950 PDR listed:

penicillin, aureomycin, chloromycetin, dehydrostreptomycin, streptomycin, neoprontosil, sulfadiazine, sulfamerazine, sulfanilamide, sulfathiazine, sulfasuxidine, sulfathalidine.

The term "broad spectrum" was first applied to aureomycin. It is my recollection that "broad spectrum" indicated then that an antibiotic could attenuate viruses as well as bacteria. We find the idea expressed in regard to aureomycin in the 1950 edition: " . . . It is also effective against primary atypical pneumonia, an infection of unknown etiology frequently presumed to be caused by a virus. Its efficacy against a true virus has not been proved but isolated case reports warrant the clinical trial of this antibiotic in such infections."

But, those tough cases of "virus pneumonia" it cured for us were probably undertreated bacterial pneumonia. The dose of aureomycin was approximately that of tetracyclines today, but penicillin was given in comparatively small doses and irregularly. The recommendation of "once in 12 to 24 hours" for the longer acting penicillin preparations was followed too often, and the interval was too often 24 hours. Return of the patient to the office or the doctor to the home for successive injections was irregular and infrequent.

In some areas we have made a lot of progress in 21 years. We have 75 "Corticoid" preparations to suit our every whim, and we out-score 1950 in laxatives, 84 to 26. On the other hand we are tied 19 to 19 in "anti-flatulents"; and I hope no one orders a sudden-death playoff.

The change in title of the Blue Section from "Therapeutic Indications Index" to "Drug Classification Index" has erased some vicious diseases from our daily worries.

I'm proud to realize that I have in my time seen the stamping out of:

frambesia, blackheads, ariboflavinosis; dyspepsia lassitude singultus and chlorosis; hymnolepsis nana, tsu tsu gamushi fever; ticks, tics, torticollis; perspiration fetid.—GEORGE E. MORRISSEY, M.D., *IMS Historical Committee.*

Educationally Speaking

by RICHARD M. CAPLAN, M.D.

WHO ATTENDS FORMAL POSTGRADUATE COURSES? DO YOU?

A recent survey of a carefully selected group of Iowa physicians by Mr. Paul Guptill provides some interesting data. He has permitted me to share a portion with you. In his research work for a graduate degree in Health and Hospital Administration, Mr. Guptill surveyed a group of physicians who practice in multi-specialty clinic groups of Iowa. He compared this group with other Iowa physicians matched carefully for age, geographic distribution and medical discipline, but who practiced in solo or single-discipline groups. One question asked was "Have you attended any formal, postgraduate courses (symposia, workshops, etc.) for practitioners during the past three years?" The results:

Clinic Group		Comparison Group	
Yes	94 (89%)	Yes	84 (78%)
No	12 (11%)	No	24 (22%)

The difference between the two groups proved statistically significant. The finding that members of Iowa multi-specialty clinic groups participate at a numerically higher level than their comparison group is perhaps not surprising. However, for both groups I am impressed that the number answering "yes" seems cheeringly high. This is in contrast to a rather depressing interpretation given to some statistics gathered in Kansas a few years ago by Lewis and Hassanein (N. ENG. J. MED. 282:254, 1970). These researchers found only 57% of available Kansas physicians attended University of Kansas programs between 1956 and 1965.

Mr. Guptill sought information from 428 physicians and obtained responses from 229 (53.5%). What, you may well ask, was the course attendance data for the 46.5% who didn't respond? Who knows? Most survey research operates on the general assumption that non-responders are similar to responders. Your speculation on this point is as likely to be wrong as mine. Hopefully, a new survey of Iowa physicians now in progress may amplify these data and conclusions.

But so what? Are such courses and programs worthwhile? That depends on your personal *style* of learning, how adequately you *assess yourself* and your educational gaps, how *carefully you choose* the postgraduate offerings you attend, and how *willingly you change* your behavior when you have "learned" something new.

Dr. Caplan is Assistant Dean, Continuing Education, at The University of Iowa College of Medicine.

Continuing Education Courses & Conferences

Please call or write Office of Continuing Medical Education, College of Medicine, for further information on these programs. Telephone 319-353-5763.

1972

April 5	Ophthalmology Clinical Conference
April 6-8	In-House Conference for Practitioners
April 10-13	Intensive Coronary Care Management Course*
April 20	Clinical Day in Neurology*
May 8-11	Conference-Workshop on Ultrasonography in Ophthalmology
May 8-12	Intensive Course in Pediatric Nutrition
May 11-13	Iowa Eye Association Meeting
May 18	*Clinical Problems in Neurology
May 29-June 2	Management of Maxillofacial Injuries
June 5-7	American College of Physicians Course
June 5-8	*Intensive Coronary Care Management Course
June 16-17	Cancer Teaching Days
June 26-30	Summer Workshop on Alcoholism

Unless otherwise specified all courses and conferences are held at The U. of I. College of Medicine, Iowa City.

* Enrollment limited. Advance registration necessary.

State Department of Health

ARNOLD M. REEVE, M.D., M.P.H., Commissioner

1971 MORBIDITY REPORT IN SUMMARY FORM

The following statistical data has been compiled by the Iowa State Department of Health and is a tabulation by county of the diseases reported to the Department in 1971. Also provided in this issue is the annual summary (for 1971) of the regularly submitted morbidity report.

Stanley L. Hendricks, D.V.M., M.P.H., is acting chief of the Department's Preventive Medical Service, and as such supervises the compilation of this data.

1971 MORBIDITY SUMMARY BY COUNTY

County	Brucell.	Ch. Pox	Diph.	Ger. Meas.	Inf. Hep.	Influ.	Meas.	Men. Meng.	Mumps	Pertuss.	Pneu.	GIV	Strep. Infec.	TB Act.	TB Inact.	Typh. Fev.	Ven. Dis. Syph.	Ven. Dis. Ga.
Adair											4		1				5	11
Adams		11							5		1		2					4
Allamakee		38		1					117		2		24	1			1	2
Appanoose		77		1	1		148		96	3	8		10	1	1		1	5
Audubon		8		1					2	1	9	84	17					8
Benton		17		6			4		20		2	8	300	2				12
Black Hawk	4	431		18	4		273	1	212	8	19	62	27	9	2		46	512
Boone		10			1		1		119		2	183	1				2	22
Bremer		18					1		11		2	178	54		1		5	5
Buchanan		11			1				1		4	7	2	2			6	14
Buena Vista		131		3	1				28	4	6	44	5				4	21
Butler		60			2		10		3		2		46					5
Calhoun		122		4	1		2		50	4	4	217	1		1			2
Carroll		247		2	4		4		107		3	458	75				2	15
Cass		29		2					28	3		25						8
Cedar		49		1	3		3		162		7	3	77	1			3	6
Cerro Gordo		80		2	1		1		23		4	34	51	2	1		7	52
Cherokee		100		2	1				2	3	6	75	21				3	15
Chickasaw					1							20	4				3	5
Clarke																	2	3
Clay		211		30	3		7		6			26	3				2	13
Clayton		20		1					65		1	212	7				1	2
Clinton		9		3	1	1†	6	1	43		6	79	94	4			13	81
Crawford	3	144		7	1		2		156		3	543	6	2			1	7
Dallas				8			8		15		5		18				2	65
Davis		7		1			112		31		11	5	5					
Decatur				1														5
Delaware		6		2	1		1		186		1	1	33		1		1	5
Des Moines		115		35	9		369		313		8	1	29	4			10	93
Dickinson		74		12					55		2	41	5				5	6
Dubuque	16	805		15	14		19		771	3	19	312	119	2	3		10	132
Emmet		28		1			1		2		3	102	32	1			2	3

1971 MORBIDITY SUMMARY BY COUNTY

County	Brucell.	Ch. Pox	Diph.	Ger. Meas.	Inf. Hep.	Influ.	Meas.	Men. Meng.	Mumps	Pertuss.	Pneu.	GIV	Strep. Infec.	TB Act.	TB Inact.	Typh. Fev.	Ven. Dis. Syph.	Ven. Dis. Ga.
Fayette		57		4	3	3†			5		2	32	2	1	1		2	18
Floyd		49		3	1	1†			6		6	295	18				2	2
Franklin					2				12		8	4					1	4
Fremont		44		1					6			2	1				6	3
Greene		10					1	1	1		2	67	12	1				8
Grundy		5		6								90	3					4
Guthrie																		7
Hamilton		11		7			1		2		4	1	9				1	13
Hancock		8							6		1	73	135		1		1	3
Hardin		20		5	3	2†	33		89		3	44	4	1			1	35
Harrison		11							9		1	100	16	1			4	4
Henry		61		3	1		22		33		2	1	51				2	11
Howard																		2
Humboldt		91		1					2			8	4				2	7
Ida				1					19		1						1	1
Iowa		18					1				4	194	54				1	3
Jackson	1	47		6	1	1†	141		43		16	646	336	3			5	9
Jasper		32		46	1				67		8	16	19				2	47
Jefferson		38		1	2		28	2	61		4	16	521	2				17
Johnson		119		35	9	9†	7		30	1	44	955	2,474	1			29	235
Jones		101					4		5		8	17	19	2			1	7
Keokuk		195		6	2	1†	51		4		5	641	124				3	7
Kossuth		60		2	4			1	4	1		29	76				4	7
Lee		101		8	2		17	1	87	13	11	241	23	3	1		23	20
Linn	1	412		41	10		16		410		30	398	88	8	2		45	698
Louisa		73			1		13		2	1	7		11	1			3	1
Lucas		1					2	1				1			1		1	5
Lyon		7					1		3		1		4					3
Madison		24		1			1		9			298	56	1			1	4
Mahaska		5			1	1†	35		3		7		1	1			1	19
Marion		75		9	2		37		236		1	11	3				7	34
Marshall		59		57	2		147		173		3	116	202				7	92
Mills		60		1	1				11	13	3	11	8	3				5
Mitchell		35			2						1		5					5
Monona		10		11							2	60	1				2	7
Monroe		15		4	2		31		60		2	35	11	1				
Montgomery		1							1				5	1			2	4
Muscatine		95		1	1		2	1	40		8	1	66	2			9	13
O'Brien		95		3					11	1	1	25	8	1				15
Osceola		2							3				1					1
Page		26		1	1		1		45			156	12				11	2
Palo Alto	1	126		1			4		1	3			8				2	3
Plymouth	1	28		5	1				73					2				11
Pocahontas		1									2	35		1				5
Polk		620		240	52	1†	73	3	447		24	442	376	23	3		139	1,963
Pottawattamie		299		12	30		8		183		97		23	6	1		27	105
Poweshiek		38		3	1		1	1	24		6	1	167				1	60
Ringgold												1	1				1	2
Sac		18							3				6				3	8
Scott	1	113		6	73	1†	7	2	134	9	402	5	134	8	2		44	698
Shelby		48		2					96			57	3	1				1
Sioux		40			3		4		121		1	1	9					4
Story	1	206		4	2	2†	2		8		6	55	51				8	88
Tama		16			1		118		2		1	1	43				2	22
Taylor		10							1				21		1			1
Union		17							2		1		5				4	20

1971 MORBIDITY SUMMARY BY COUNTY

County	Brucell.	Ch. Pox	Diph.	Ger. Meas.	Inf. Hep.	Influ.	Meas.	Men. Meng.	Mumps	Pertuss.	Pneu.	GIV	Strep. Infec.	TB Act.	TB Inact.	Typh. Fev.	Ven. Dis. Syph.	Ven. Dis. Ga.
Van Buren		38		12			6		125		2		10				1	1
Wapello		22		16			898		28	1	15	2	22	3			8	49
Warren		173		1	2		4		24		2	362	23	1			3	35
Washington		36		4	1		6		60	1	3	6	101	2			1	4
Wayne		14					12					34	6	1			1	1
Webster		16		2	1		1		1		4		18	1			16	82
Winnebago		52		14			4		2		9	552	244	1				13
Winneshiek		34			17	1†			49		1	94	7					18
Woodbury	1	180		3	12		1		221	6	4		15	13	1		21	386
Worth		10			1				1				6					7
Wright		85		3	2		4		17		1	1	7	1	1		2	7
Total 1971	30	7,171	0	751	303	24†	2,717	15	5,750	79	921	8,953	6,758	129	25	0	601	6,115
Total 1970	60	5,876	0	2,093	350	11,517	1,144	13	3,546	22	1,006	1,649	6,904	129	31	2	540	5,556
Total 1969	41	5,192	0	2,534	380	1,047	362	21	4,533	18	605	268	4,952	128	23	1	738	4,409
Total 1968	32	6,634	0	2,054	492	8,724	165	14	12,539	65	333	1,874	5,516	118	34	2	725	4,002

GIV = Gastrointestinal viral infection. † Laboratory confirmed.

Supplement to Morbidity Report—Annual Summary for 1971

Amebiasis	4
Blastomycosis	1
Cat Scratch Fever	1
Chancroid	1
Conjunctivitis	529
Encephalitis—	
California Virus	3
Coxsackie A5	1
Echo 4	3
Echo 6	1
Echo 9	1
Viral	5
type unspecified	2
Encephalomyelitis	
Echo 4	1
Food-borne Illness	
type undetermined	55
Gas Gangrene	1
Hepatitis, serum	13
Histoplasmosis	21
Impetigo	596
Infectious mononucleosis	1083
Leptospirosis	1
Listeriosis	1
Lymphocytic choriomeningitis	1
Malaria, imported—	
P. falciparum	3
P. vivax	26
Meningitis—	
Aseptic	5
Bacterial	3
Coxsackie B4	1
Echo 4	2
Echo 6	1
Echo 9	3
H. influenza	6
Hemophilus	1
Viral	7
type unspecified	16
Meningo-encephalitis	6
Nocardiosis	1
Pinworms	77
Pleurodynia, Coxsackie B1	1
Poliomyelitis	1*
Q-Fever	1
Rabies in Animals	240
Rheumatic Fever	57
Ringworm—	
Body	161
Scalp	10
Rocky Mountain Spotted Fever	2
Roseola	29
Salmonellosis—(Total 184)	
S. blockley	7
S. cubana	2
S. derby	6
S. enteritidis	13
S. habana	1
S. haifa	1
S. heidelberg	8
S. infantis	4
S. java	1
S. javiana	1
S. manhattan	4
S. montevideo	2
S. muenchen	5
S. newport	15
S. oranienburg	5
S. oslo	2
S. panama	1
S. paratyphi B	4
S. reading	1
S. saint paul	3
S. schwarzengrund	1
S. senftenberg	1
S. thompson	27
S. typhimurium	52
S. typhimurium var. copenhagen	6
S. urbana	1
type unspecified	1
Group B	6
Group C	3
Shigellosis—(Total 204)	
S. flexneri	2
S. sonnei	200
type unspecified	1
Group D	1
Tetanus	1

* Union County, onset October 1971

CAMP HERTKO HOLLOW

A seven-day summer camp for diabetic youth will be held at the Des Moines YMCA Camp from August 13 to 20. The Camp is six-and-a-half miles northwest of Boone. The special program is known as Camp Hertko Hollow.

The Iowa Diabetes Association and the Iowa Dietetic Association sponsor the program. The camp fee for the week is $60. In addition to the regular camp staff, special health personnel are at camp to assist the young people.

Physicians who have diabetic patients are invited to have them contact the following persons for information about Camp Hertko Hollow: Vivian Murray, President, Iowa Diabetes Association, Route 3, Ames 50010, Telephone 515-292-1785 (home) or 515-294-2380 (office); or Mrs. Edna Elwood, Secretary, Iowa Diabetes Association, 1426 Eleventh St., Des Moines 50314, (515-244-7064).

IN ASTHMA
IN EMPHYSEMA



optional therapy

THE mudranes®

All Mudranes are bronchodilator-mucolytic in action, and are indicated for symptomatic relief of bronchial asthma, emphysema, bronchiectasis and chronic bronchitis. **MUDRANE tablets** contain 195 mg. potassium iodide; 130 mg. aminophylline; 21 mg. phenobarbital (Warning: may be habit-forming); 16 mg. ephedrine HCl. **Dosage** is one tablet with full glass of water, 3 or 4 times a day. **Precautions** are those for aminophylline-phenobarbital-ephedrine combinations. **Iodide side-effects:** May cause nausea. Very long use may cause goiter. Discontinue if symptoms of iodism develop. **Iodide contraindications:** Tuberculosis; pregnancy (to protect the fetus against possible depression of thyroid activity). **MUDRANE-2 tablets** contain 195 mg. potassium iodide; 130 mg. aminophylline. **Dosage** is one tablet with full glass of water, 3 or 4 times a day. **Precautions** are those for aminophylline. **Iodide side-effects and contraindications are listed above. MUDRANE GG tablets** contain 100 mg. glyceryl guaiacolate; 130 mg. aminophylline; 21 mg. phenobarbital (Warning: may be habit-forming); 16 mg. ephedrine HCl. **Dosage** is one tablet with full glass of water, 3 or 4 times a day. **Precautions** are those for aminophylline-phenobarbital-ephedrine combinations. **MUDRANE GG-2 tablets** contain 100 mg. glyceryl guaiacolate; 130 mg. aminophylline. **Dosage** is one tablet with full glass of water, 3 or 4 times a day. **Precautions:** Those for aminophylline. **MUDRANE GG Elixir.** Each teaspoonful (5 cc) contains 26 mg. glyceryl guaiacolate; 20 mg. theophylline; 5.4 mg. phenobarbital (Warning: may be habit-forming); 4 mg. ephedrine HCl. **Dosage:** Children, 1 cc for each 10 lbs. of body weight; one teaspoonful (5 cc) for a 50 lb. child. Dose may be repeated 3 or 4 times a day. Adult, one tablespoonful, 4 times daily. All doses should be followed with ½ to full glass of water. **Precautions:** See those listed above for Mudrane GG tablets.

MUDRANE—original formula

First choice

MUDRANE-2

When ephedrine is too exciting or is contraindicated

MUDRANE GG

During pregnancy or when K.I. is contraindicated or not tolerated

MUDRANE GG-2

A counterpart for Mudrane-2

MUDRANE GG ELIXIR

For pediatric use or where liquids are preferred

Clinical specimens available to physicians.

WILLIAM P. POYTHRESS & COMPANY, INC., RICHMOND, VIRGINIA 23217

Manufacturers of Ethical Pharmaceuticals

Medical Assistants

by TENORA MEYER

Midwest Gathering Of Medical Assistants

The medical assistants of Iowa are planning a day and a half regional seminar. To meet with medical assistants from adjoining states for educational purposes has been a goal of the respective associations. This is a "first" for this type of venture in the midwest.

May weather is ideal for travel. Registration, including meals, will be under $20. States invited are Nebraska, Minnesota, Wisconsin, Illinois, Missouri and South Dakota. The convention will be at the Roosevelt Motor Hotel in Cedar Rapids, May 19, 20 and 21, 1972.

CONVENTION PROGRAM

Five Senses Potpourri . . . In the City of Five Seasons

Friday, May 19

12:00- 2:00 P.M. Registration
2:00- 4:00 P.M. Specialty Workshops:
Cardiovascular—Montague Lawrence, M.D.
Urology—Thomas Stark, M.D.
Psychiatry—W. J. Morschel, M.D.
4:30- 8:00 P.M. Registration
5:00- 6:00 P.M. Attitude Adjustment
6:00- 7:00 P.M. Executive Council
6:30- 8:00 P.M. Dinner Hour—your choice
8:00 P.M. Campaign Hours

Saturday, May 20

7:30-Noon Registration
7:30- 9:00 A.M. Continental Breakfast
8:00 A.M. House of Delegates
10:00 A.M. General Assembly
10:45 A.M. Program
Ecology—Ruth Siemer, Ph.D., Associate Professor Biology, Coe College
Law and the Medical Assistant—Iowa Supreme Court Justice Warren Rees
12:15 P.M. Luncheon
Speaker—Robert Ray
1:45 P.M. Film and Tour
"Our New Atomic Energy Center"
5:00- 6:00 P.M. Registration
6:00- 7:00 P.M. Happy Hour
7:15 P.M. Banquet
8:45 P.M. Installation of Officers
"A Nite in New Orleans"

Sunday, May 21

8:00- 9:00 A.M. Continental Breakfast
9:30-11:00 A.M. Rap Session—AAMA Representative, Mrs. Bettye Fisher
11:00 A.M. Brunch

The Cedar Rapids Chapter of Medical Assistants urges medical assistants in Iowa and neighboring states to attend convention program.

Officers of the Cedar Rapids Chapter of Medical Assistants are as follows: **President**—Mrs. Sally Mead, **President-Elect**—LeElyn Hansen, **Vice-President**—Mrs. Von Lillios, **Secretary**—Miss Peggy Mulvihill, and **Treasurer**—Velma Goettel.

State officers include the following: **President**—Mrs. Marjorie Snyder, Cedar Rapids, **President-Elect**—Marcine Sanders, Davenport, **Vice President**—Sally Gesink, Sioux City, **Secretary**—Jean Gold, Davenport, **Treasurer**—Phyllis Weatherman, Mason City, **Parliamentarian**—Barb Smith, Cedar Rapids, **Historian**—Barb Smith, Cedar Rapids, **Corresponding Secretary**—Wilma Heller, Newhall, and **Immediate Past President**—Colleen Proffitt, Des Moines.

If you are interested in attending the convention in Cedar Rapids, you may contact Mrs. Marion Little, 221 23rd St. N.E., Cedar Rapids, Iowa 52402. She will send registration forms and suggestions on hotel and motel accommodations.

There are seven component chapters of AAMA, State of Iowa, Inc.: Mason City, Des Moines, Davenport, Sioux City, Cedar Rapids, Waterloo and Council Bluffs.

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This page is prepared for and by the Iowa Chapter, American Association of Medical Assistants. Material is compiled by Mrs. Tenora Meyer.

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Side effects: Blurred vision, dry mouth, dysuria, and other atropine-like side effects may occur at high doses, but are only rarely noted at recommended dosages.
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STATE DEPARTMENT OF HEALTH
Morbidity Report for February 1972

Diseases	Feb. 1972	1972 to Date	1971 to Date	Most February Cases Reported From These Counties
Chancroid	1	1	0	Clinton
Chickenpox	1301	2421	1493	Black Hawk, Dubuque, Polk
Conjunctivitis	50	88	45	Jackson, Woodbury
Encephalitis Viral	1	1	2	Linn
Gastrointestinal viral infection	966	1902	2347	Dubuque, Lee, Linn
German measles	59	91	120	Black Hawk, Linn
Gonorrhea	454	948	735	Black Hawk, Linn, Polk, Scott
Hepatitis				
Infectious	23	45	59	Polk
Serum	1	2	5	Scott
Histoplasmosis	4	8	1	Linn
Impetigo	51	105	92	Linn, Polk
Infectious mononucleosis	97	161	190	Johnson
Influenza, lab confirmed	59	63	0	Johnson
Measles	104	190	194	Black Hawk, Washington
Meningitis				
Pneumococcal	1	3	0	Dubuque
Viral	1	1	2	Allamakee
type unspecified	2	3	3	Pottawattamie, Scott
Meningococcemia	1	1	0	Chickasaw
Mumps	1063	2229	758	Dubuque, Linn
Pneumonia	95	208	185	Scott
Rabies in Animals	22	38	55	Hamilton, Marshall, Winneshiek, Woodbury
Rheumatic fever	2	7	13	Iowa, Lee
Ringworm, body	10	26	37	Dubuque, Scott, Winneshiek
Roseola	3	3	2	Polk
Salmonellosis				
S. heidelberg	1	1	0	Johnson
S. infantis	1	3	0	Wapello
S. typhimurium	2	5	2	Cherokee, Woodbury
Shigellosis				
S. flexneri	2	2	1	Linn, Polk
S. sonnei	14	44	4	Black Hawk, Wapello
Syphilis	35	76	89	Polk
Tuberculosis, active	5	17	21	Scott
Whooping cough	10	11	3	Allamakee

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Indications
Pre-Sate (chlorphentermine hydrochloride) is indicated in exogenous obesity, as a short term (i.e. several weeks) adjunct in a regimen of weight reduction based upon caloric restriction.

Contraindications
Glaucoma, hyperthyroidism, pheochromocytoma, hypersensitivity to sympathomimetic amines, and agitated states. Pre-Sate (chlorphentermine hydrochloride) is also contraindicated in patients with a history of drug abuse or symptomatic cardiovascular disease of the following types: advanced arteriosclerosis, severe coronary artery disease, moderate to severe hypertension, or cardiac conduction abnormalities with danger of arrhythmias. The drug is also contraindicated during or within 14 days following administration of monamine oxidase inhibitors, since hypertensive crises may result.

Warnings
When weight loss is unsatisfactory the recommended dosage should not be increased in an attempt to obtain increased anorexigenic effect; discontinue the drug. Tolerance to the anorectic effect may develop. Drowsiness or stimulation may occur and may impair ability to engage in potentially hazardous activities such as operating machinery, driving a motor vehicle, or performing tasks requiring precision work or critical judgment. Therefore, such patients should be cautioned accordingly. Caution must be exercised if Pre-Sate (chlorphentermine hydrochloride) is used concomitantly with other central nervous system stimulants. There have been reports of pulmonary hypertension in patients who received related drugs.

Drug Dependence Drugs of this type have a potential for abuse. Patients have been known to increase the intake of drugs of this type to many times the dosages recommended. In long-term controlled studies with the high dosages of Pre-Sate, abrupt cessation did not result in symptoms of withdrawal.

Usage In Pregnancy The safety of Pre-Sate (chlorphentermine hydrochloride) in human pregnancy has not yet been clearly established. The use of anorectic agents by women who are or who may become pregnant, and especially those in the first trimester of pregnancy, requires that the potential benefit be weighed against the possible hazard to mother and child. Use of the drug during lactation is not recommended. Mammalian reproductive and teratogenic studies with high multiples of the human dose have been negative.

Usage In Children Not recommended for use in children under 12 years of age.

Precautions
In patients with diabetes mellitus there may be alteration of insulin requirements due to dietary restrictions and weight loss. Pre-Sate (chlorphentermine hydrochloride) should be used with caution when obesity complicates the management of patients with mild to moderate cardiovascular disease or diabetes mellitus, and only when dietary restriction alone has been unsuccessful in achieving desired weight reduction. In prescribing this drug for obese patients in whom it is undesirable to introduce CNS stimulation or pressor effect, the physician should be alert to the individual who may be overly sensitive to this drug. Psychologic disturbances have been reported in patients who concomitantly receive an anorectic agent and a restrictive dietary regimen.

Adverse Reactions
Central Nervous System: When CNS side effects occur, they are most often manifested as drowsiness or sedation or overstimulation and restlessness. Insomnia, dizziness, headache, euphoria, dysphoria, and tremor may also occur. Psychotic episodes, although rare, have been noted even at recommended doses. **Cardiovascular:** tachycardia, palpitation, elevation of blood pressure. **Gastrointestinal:** nausea and vomiting, diarrhea, unpleasant taste, constipation. **Endocrine:** changes in libido, impotence. **Autonomic:** dryness of mouth, sweating, mydriasis. **Allergic:** urticaria. **Genitourinary:** diuresis and, rarely, difficulty in initiating micturition. **Others:** Paresthesias, sural spasms.

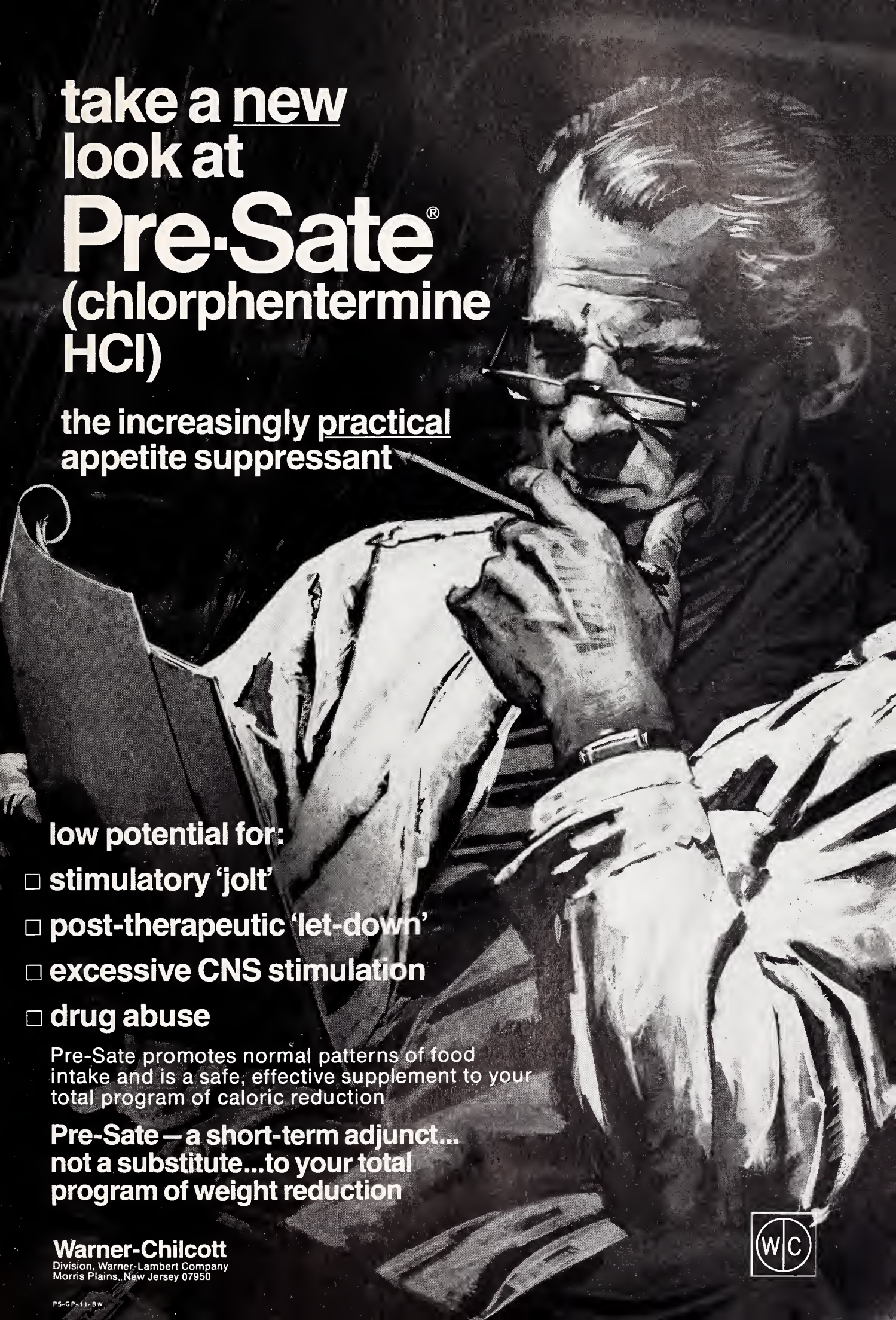
Dosage and Administration
The recommended adult daily dose of Pre-Sate (chlorphentermine hydrochloride) is one tablet (equivalent to 65 mg chlorphentermine base) taken after the first meal of the day. Use in children under 12 not recommended.

Overdosage
Manifestations: Restlessness, confusion, assaultiveness, hallucinations, panic states, and hyperpyrexia may be manifestations of acute intoxication with anorectic agents. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension, or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Fatal poisoning usually terminates in convulsions and coma.

Management: Management of acute intoxication with sympathomimetic amines is largely symptomatic and supportive and often includes sedation with a barbiturate. If hypertension is marked, the use of a nitrate or rapidly acting alpha-receptor blocking agent should be considered. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendations in this regard.

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IOWA MEDICAL MISCELLANY

(Continued from page 163)

FAMILY PRACTICE . . . The U. of I. College of Medicine is one of 26 medical schools in the country with a full department of family practice in operation. Experts now say that from a third to a half of the medical school graduates are interested in family practice, up dramatically from the eight per cent figure cited a few years ago.

CEDAR RAPIDS EXPERIENCE . . . As evidence of the mounting interest in family practice, reports are that five of the 11 medical school graduates serving one-year internships in Cedar Rapids have elected to complete the three-year post-graduate program in family practice started last July. Fourteen first year participants in the program will be selected from 49 applicants to join the five who will enter their second year.

OFFER ASSISTANCE . . . Complete professional information—or the answer to any specific question—was offered to Iowa physicians in a March visit to IMS Headquarters by a physician representative of Roche Laboratories. To obtain specific pharmacological information Iowa physicians are invited to call the Roche Department of Professional Services, 201-235-2355. Other educational and informational materials are available from Roche on request.

UCR MODIFICATIONS . . . In a March IMS NEWS BULLETIN (72-2) announcement was made of actions taken by the Blue Shield Executive Committee to modify and improve the Blue Shield Usual, Customary and Reasonable (UCR) Contract. The actions are intended to make the UCR program more responsive to current economics and to reduce, and even eliminate, misunderstandings between physicians and patients who are enrolled in the program. Included in the revisions are new and more rapid methods of compiling UCR profiles. More detailed information is being distributed by Blue Shield.

MEDICAL INFO VIA PHONE . . . Telephone use in a major medical center would astound inventor A. G. Bell. A recent study by the Hospital Administration at University Hospitals showed in excess of 10,000 telephone calls coming annually from practicing physicians into University Hospitals and Clinics. This telephonic service, which is available to physicians about the State and the University clinicians, is obviously a great boon to the delivery of health care in Iowa. Interestingly, this level of incoming calls (in Iowa) exceeds a more formalized and highly-publicized telephone program in another comparable state.

EXECUTIVE COUNCIL MEETS . . . Next meeting of the IMS Executive Council will occur April 13 at IMS Headquarters. Meetings of the Board of Trustees and Judicial Council will be the preceding day.

RADIOLOGY WINDOW

CASE NO. 1

The correct diagnosis for the case illustrated on Page 171 is (3) Coarctation of the Aorta.

The following information is pertinent:

PA CHEST: Moderate accentuation of cardiac waist; Moderate rotation of the heart to the right; Prestenosis dilatation of the aortic arch in part due to associated dilatation of left subclavian which overlaps the aortic arch. (See Figure 3.)

LAO CHEST: Forward displacement of esophagus by dilated aorta; Notch along the left margin of the aorta at the level of the coarctation associated with a double contour of the left aortic margin (double aortic knob, "3" or Lian's sign).

AORTOGRAM: Hour glass deformity of the aorta is well demonstrated in LAO position. Stenosis is located at the level of the ligamentum arteriosum and is slightly displaced medially by it. Associated bicuspid aortic valve.

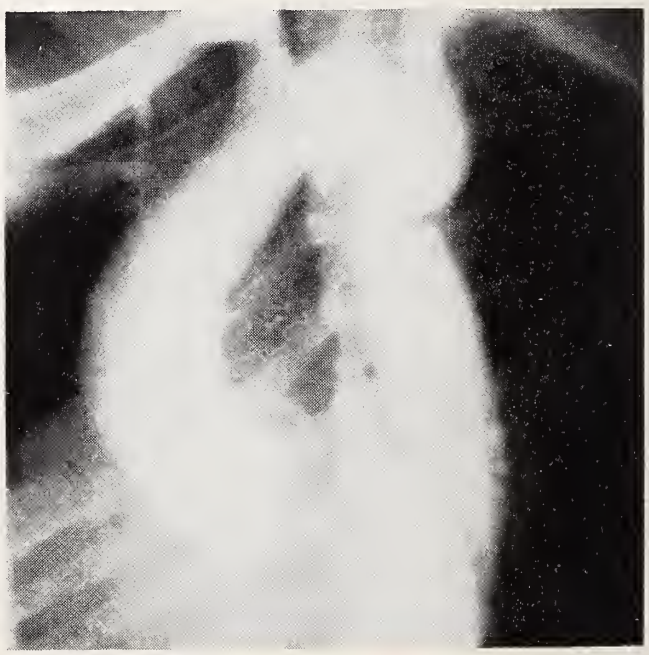


Figure 3. LAO aortogram.

About IOWA Physicians

Dr. Jon Wubbena, of Rock Rapids, **Dr. J. G. Lavender**, of George, and **Dr. E. A. Kjenaas**, of the Mental Health Institute in Cherokee, participated in a program held in Rock Rapids for residents of Lyon County on drugs and venereal disease. Dr. Wubbena spoke on "Venereal Disease in Our Society," Dr. Lavender's topic was "Drugs and Their Use," and Dr. Kjenaas discussed "Mental Health of Venereal Disease and Drug Victims and Their Families."

Dr. Robert C. Hardin, of Iowa City, and **Dr. R. J. Hennes**, of Oxford, have been re-elected to Iowa City's Mercy Hospital Advisory Board. Other members of the Advisory Board include **Dr. C. E. Schrock**, and **Dr. R. A. Simpson**, both Iowa City physicians.

Dr. Bernard L. Trey, a Marshalltown physician for 53 years, retired January 1 from active practice. A 1916 graduate of The U. of I. College of Medicine, Dr. Trey completed his internship at Montreal General Hospital. Following his internship, he served in the Medical Corps during World War I and came to Marshalltown in 1919. A life member of the Iowa Medical Society, Dr. Trey plans to spend his leisure hours in Florida and Marshalltown.

Dr. John M. Wall, of Boone, was guest speaker at a recent meeting of the Boone County Registered Nurses Association. Dr. Wall discussed "Poisoning in Childhood."

Dr. Thomas Graham, of Iowa Falls, has been appointed to the Hardin County Board of Health by the County Board of Supervisors.

Dr. Raymond G. Bunge, professor of urology at The U. of I. College of Medicine, was guest speaker at a recent combined meeting of Story and Boone County Medical Societies.

Dr. Herbert Neff, of Guthrie Center, has been elected chief of staff at Guthrie County Hospital. **Dr. N. L. Krueger**, of Casey, will serve as vice president, and **Dr. D. E. Taylor**, of Stuart, secretary.

Dr. Scott Linge, of Fayette, was guest speaker at a recent meeting of the West Union Rotary Club. Dr. Linge discussed new trends in medicine.

Dr. Paul W. Osincup, of Sioux City, and **Dr. Frank G. Harper**, of Fort Madison, have been re-elected to active membership in the American Academy of Family Physicians.

The following Grinnell physicians have been named officers of the Grinnell General Hospital staff—**Dr. Warren H. Bower**, chief of staff, **Dr. William Evans**, vice chief, and **Dr. David L. Ferguson**, secretary.

Dr. Richard L. Lawton, professor of surgery at The U. of I. College of Medicine, presented papers on "Immunologic Aspects of Cancer" and "Colon Cancer—Immunologic Frontiers" at a January planning conference of the Veterans Administration's Cancer Chemotherapy Cooperative Group in San Juan, Puerto Rico. Dr. Lawton also spoke recently to the Fairfield Rotary Club on organ transplantation.

Dr. William S. Thoman, president of Woodbury County Medical Society, recently wrote an article for the SIOUX CITY JOURNAL entitled, "Doctors Aid Well-Being of Community." Dr. Thoman summarized the participation of Sioux City physicians in community affairs.

Dr. George L. Baker, assistant dean for medical affairs at The U. of I. College of Medicine, recently presented a public lecture at Wartburg College in Waverly. Dr. Baker's topic was, "Don't Inter-

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fere with the Lifeline." His appearance was co-sponsored by the American Medical Association Council on Foods and Nutrition and the Iowa Medical Society.

Dr. Donald Soll, of Denison, has been named president of Crawford County Memorial Hospital staff. **Dr. R. A. Huber,** of Charter Oak, is vice president. **Dr. M. U. Broers,** of Schleswig, will serve as secretary, and **Drs. J. L. Flood,** of Denison, and **J. M. Hennessey,** of Manilla, as treasurers.

Dr. Alfred N. Smith, of Des Moines, was a recent guest speaker at a meeting of the Dallas-Guthrie County Medical Societies. Dr. Smith spoke on "Hemoptysis."

Dr. and Mrs. David Holman, of Ottumwa, are serving a four-month tour of duty in Brazil aboard the hospital ship, S. S. Hope. Dr. Holman is working in the ship's pathology department and Mrs. Holman is serving as clerk. The ship is supported totally by contributed funds, and spends about 10 months each year in a different country. Past missions have been to Vietnam, Peru, Tunisia, Jamaica, Colombia, Ceylon and Indonesia.

Dr. Charles T. Maxwell, a 50-year member of the American College of Surgeons, retired in January after 58 years in the practice of medicine at Sioux City. Dr. Maxwell received the M.D. degree at Rush Medical College, interned at Chicago's Cook County Hospital, then came to Sioux City to begin his practice of medicine. Though retired, Dr. Maxwell will continue to serve as city health officer, a post he has held since 1962.

Dr. Johann L. Ehrenhaft, professor and chief of thoracic surgery at The U. of I. College of Medicine, gave a report on the "Activities of the American Board of Thoracic Surgery," at a meeting of the Society of Thoracic Surgeons in San Francisco.

Dr. John J. Dougherty, of Sioux City, was inducted into the American Academy of Orthopaedic Surgeons at the group's recent annual meeting in Washington, D. C.

The Health Planning Council of North Central Iowa has elected **Dr. John M. Rhodes, Jr.,** of Pocahontas, to its governing board.

Dr. H. E. Rudersdorf, and **Dr. H. N. Hirsch,** both Sioux City physicians, are members of the

Woodbury County Heart Association fund raising committee.

Dr. K. S. Sun, an Ames ophthalmologist, was guest speaker at a recent meeting of the Hamilton County Hospital medical staff. Dr. Sun spoke on eye injuries.

Dr. E. H. Sibley, of Sioux City, has been named president of the 1972 Siouxland United Way. Dr. Sibley has also been named admiral of the port for the 1972 Sioux City River-Cade and will head up all River-Cade festivities.

At the annual meeting of the Benton-Iowa-Poweshiek-Tama (BIPT) Health Services, Inc., **Dr. William H. Steinbeck,** of Keystone, was elected a member of the board, and **Drs. Charles Maplethorpe, Jr.,** of Toledo, **Bernhard Wiltfang,** of Grinnell, and **Dr. Steinbeck** were appointed to the advisory board.

Dr. Volker E. Dube, a Mason City pathologist, presented a paper on "Complement in Multiple Sclerosis," at the spring meeting of the American Society of Clinical Pathologists in Atlanta, Georgia. The research work was sponsored by the American Cancer Society.

Dr. L. E. Jensen will soon observe his golden anniversary as a practicing physician in Audubon. A graduate of The U. of I. College of Medicine, Dr. Jensen came to Audubon in 1922 after an internship in Wisconsin. In addition to serving the medical needs of the citizens of Audubon for 50 years, Dr. Jensen served three years on the Audubon School Board and was one of the organizers of the Audubon County Memorial Hospital and the Friendship Home. In recognition of his long and distinguished service, he was presented the community's Chamber of Commerce service award in 1969. The Audubon County Medical Society has nominated Dr. Jensen for life membership in the Iowa Medical Society.

Dr. Robert Guthrie, a member of the Department of Radiology at The U. of I. College of Medicine, was guest speaker at a recent meeting of the Cerro Gordo County Medical Society. Dr. Guthrie discussed radiation treatment of Hodgkin's disease.

The first annual Religious Emphasis Week at the Iowa State Men's Reformatory included a talk by **Dr. Richard Sedlacek,** of Cedar Rapids. Dr. Sedlacek spoke on "Religion in the Modern World." The week, as the name implies, was set aside for Christian emphasis and provided a time for the inmates to commit or recommit themselves spiritually and morally.

Dr. H. G. Blume, of Sioux City, has been named chairman of the medical advisory committee of the Northwest Iowa Chapter of the National Multiple Sclerosis Society.

Dr. Brian F. McCabe, head of the Department of Otolaryngology at The U. of I. College of Medicine, participated in a recent meeting of the American College of Surgeons in St. Louis. Dr. McCabe joined a panel discussion on head injuries. His specific topic was "Acute Injuries of the Inner and Middle Ear."

Dr. Ronald R. Roth, of Waterloo, and **Dr. John F. Murphy,** of Boone, have been elected to active membership in the American Academy of Family Physicians.

SCANLON MEDICAL FOUNDATION/IOWA MEDICAL SOCIETY

A most worthwhile mechanism for creating a memorial to a relative, associate, colleague or friend exists in the Scanlon Medical Foundation/Iowa Medical Society. The Foundation utilizes memorial gifts to carry forward its loan program which has helped more than 300 young Iowans finance their medical educations. The Foundation will be glad to send an appropriate card in the name of the donor to the family of the person honored. The tax-deductible memorial gifts should be directed to the Scanlon Medical Foundation/ Iowa Medical Society, 1001 Grand Avenue, West Des Moines, Iowa 50265.

Dr. Dale R. Wassmuth has been named president of Sioux City's St. Vincent Hospital medical staff, **Dr. James H. Walston**, vice president; and **Dr. William S. Thoman**, secretary-treasurer. All are Sioux City physicians.

Dr. Wm. A. Sybers, a Fort Dodge pathologist, was guest speaker at a recent meeting of the Wright County Medical Society. Dr. Sybers' talk was entitled, "Enzymes—Are They Sacred?"

The following Audubon physicians have been elected officers of the Audubon County Memorial Hospital medical staff—**Dr. H. K. Merselis**, president; **Dr. L. E. Jensen**, vice president; and **Dr. R. L. Bartley**, secretary-treasurer.

Dr. Henry Hanson, of Waverly, has been named to the Board of Counselors of the Wartburg College Castle Club.

Dr. C. F. Watts, of Marengo, has retired from the active practice of medicine. Dr. Watts came to Marengo in 1940.

Dr. J. X. Tamisiea, of Milford, recently participated in a Spencer community health education program. Dr. Tamisiea discussed "Cancer Detection for Females." The program was sponsored by the Iowa Lakes Community College Continuing Health Education Department, Spencer Municipal Hospital, and the Spencer Community School.

Dr. Eugene Goldberg has been elected president of the medical staff at Schoitz Memorial Hospital in Waterloo; **Dr. Richard Long** will serve as vice-president; and **Dr. Lane Reeves**, secretary-treasurer. Sectional heads are—**Dr. Richard Waldorf**, surgical; **Dr. Thomas Spragg**, medical; **Dr. William Telfer**, obstetrics and gynecology; **Dr. Jean LePoidevin**, pediatrics; **Dr. John Walker**, orthopedics; Dr. Goldberg, anesthesiology; **Dr. Clarence Ludwig**, radiology; **Dr. William Cannon**, pathology; **Dr. Thomas Updegraff**, ear, nose and throat; **Dr. Charles Waterbury**, general; **Dr. Arthur Woodward**, neurology; and **Dr. Ralph Hadlund**, ophthalmology.

Fourteen Fort Dodge physicians recently participated in a lecture series at Iowa Central Community College on "Caring for the Acutely Ill Patient." They were **Dr. Roy O. Sebek, Dr. Michael**

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BOOTH NO. 1 ANNUAL MEETING

Stitt, Dr. William W. Jones, Dr. William A. Sybers, Dr. Herbert H. Kersten, Dr. Donald E. Tyler, Dr. John P. Vanderheiden, Dr. Francis E. Giles, Dr. Richard C. Tripp, Dr. Roger E. Drown, Dr. Paul L. Stitt, Dr. Gary A. Bloom, Dr. William C. Robb, and **Dr. Robert W. Lee.**

Dr. Harry Harper, Sr., of Fort Madison, was honored on his 72nd birthday at a testimonial dinner sponsored by the Fort Madison branch of the National Association for the Advancement of Colored People. A 1926 graduate of Howard University Medical School, Dr. Harper has practiced medicine in Fort Madison for almost 45 years. Among those paying tribute to Dr. Harper were **Congressman Fred Schwengel, State Senator Will Davis** and **State Representative John Clark.**

Dr. Larry Boeke, of West Union, has been reelected to the board of directors of the Cedar Valley Mental Health Society which sponsors the Waverly Mental Health Center.

Dr. Robert Powell, of Kingsley, was guest speaker at a recent meeting of scuba divers in Sioux City. Dr. Powell discussed various first aid treatments for use by the diver after contact with dangerous marine animals.

DEATHS

Dr. Charles L. Closson, 88, a Walker physician and surgeon for 61 years, died February 5 at a Cedar Rapids hospital. Dr. Closson was a graduate of The U. of I. and Northwestern University School of Medicine. A life member of the Iowa Medical Society and American Medical Association, he began his practice of medicine in Walker in September of 1910.

Dr. Robert J. Prentiss, 63, professor of urology at the University of California, San Diego, and an alumnus and former faculty member at The University of Iowa, died Wednesday, March 8, in San Diego. Dr. Prentiss received the M.D. degree at The U. of I. College of Medicine in 1934 and completed residency training in urology at The U. of I. Hospitals in 1939. He was a member of The U. of I. faculty until 1942, when he was appointed clinical associate professor of surgery and acting head of urology at the University of California. In September, 1970, Dr. Prentiss was honored by The U. of I. as the most distinguished alumnus in urology at a celebration marking the 100th anniversary of the founding of The U. of I. College of Medicine.

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IN THE PUBLIC INTEREST

TRADITIONS HAVE VIRTUE. When a custom is repeated regularly (monthly, annually, etc.) the reasons for its observance become increasingly more imbedded in our minds. One tradition of the state's medical profession, i.e., the Iowa Medical Society, is to recognize The University of Iowa College of Medicine each April. This Spring tradition has at least two manifestations.

First, the April issue of the JOURNAL OF THE IOWA MEDICAL SOCIETY is designated the *University Issue*. Attention is drawn in this particular issue to the long-standing and positive relationship which exists between the College of Medicine and the state's medical practitioners. In addition to scientific writing by faculty members, the issue contains brief reports on some of the important programs and projects of the College. In his succinct 1972 *University Issue* remarks, John W. Eckstein, M.D., Dean of The U. of I. College of Medicine, calls on both medical academician and practitioner to provide positive direction and leadership. He puts it like this:

"We are being told constantly that the medical profession is faced with a crisis of staggering proportions in seeking to satisfy society's expectations and demands for the provision of optimum health care. If the medical community is to have a significant impact on the revolutionary changes being proposed in the system of health care and health care delivery in this country, we must marshal all of our representative organizations to provide positive direction and leadership. For this and other reasons, I am most grateful for the reception I have received from the Iowa Medical Society on the several occasions I have appeared before its members to discuss issues of mutual interest and concern. We at the College look forward to strengthening even further our relationships with the state and county societies, as well as with the individual members which these organizations represent."

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ANNUAL MEETING RECOGNITION

The second of the April nods to the College of Medicine comes at the time of the Annual Meeting of the Iowa Medical Society. On Sunday, April 23, Dean Eckstein will be called before the Society's House of Delegates to receive a sum of money (last year it was $10,369) for the unrestricted use of the College. This check is presented annually on behalf of the American Medical Association Educational Research Foundation.

The College of Medicine status report Dean Eckstein will provide in acknowledging receipt of this grant initiates the traditional and significant involvement of The U. of I. medical faculty in the Society's Annual Meeting. No fewer than 12 faculty members from The U. of I. College of Medicine will make scientific presentations during the 1972 General Sessions, Monday and Tuesday, April 24 and 25.

What kinds of presentations are scheduled? Well, as an example, James Taylor, M.D., Associate Professor of Pediatrics, will discuss *Genetic Counseling in Iowa*. Ian Smith, M.D., Director of the Division of Infectious Diseases and Professor of Medicine, will describe *New Antibiotics*. Robert Rakel, M.D., Head of the Department of Family Practice, will give a first-year report on this new and widely-discussed Department within the College.

COLLEGE OF MEDICINE DRAWS APRIL RECOGNITION

DEPARTMENT OF FAMILY PRACTICE

For obvious reasons, interest in the new Department of Family Practice is great. It is the hope of many, both inside and outside the profession, that this Department in time will boost substantially the number of primary medical practitioners available to Iowa communities. Elements of family practice, Dr. Rakel will likely tell his 1972 IMS Annual Meeting audience, have now been introduced into all four years of the undergraduate medical curriculum at The University of Iowa.

Dr. Rakel will probably mention in his report that a faculty member of the Department of Family Practice now serves as an advisor to the freshman medical orientation program. Coordinative help is also provided a program which affords interested freshman students an early exposure to community medical practice.

This latter program is named the Medical Education—Community Orientation (MECO) Project. It is a 10-week experience for students who want to follow their freshman year by spending a summer working with health professionals in a community setting. The Iowa Chapter of the Student American Medical Association is actively involved in the MECO Project.

Indications are now the 1972 MECO program will be more successful than the first Iowa effort last year. In 1971 a third of the freshman medical class worked during the summer with physicians and in hospitals in 31 Iowa cities. In addition to providing the medical student an on-the-firing-line type of educational experience, the program's goal is also exposure of the student to the kind of quality medicine practiced in Iowa.

The Department of Family Practice touches the sophomore medical student through its participation in the Introduction to Clinical Medicine course. This is taken in the second semester of the sophomore year and provides the student the opportunity to learn basic medical diagnostic skills and to correlate the experience with previous study of mechanisms involved in human disease.

PRECEPTOR PROGRAM

For junior students, the long-standing preceptorship program is available and is now receiving administrative support from the Department of Family Practice. Under the College's new curriculum, a preceptorship must be taken somewhere within the third-year schedule of each medical student. The time must be spent with a physician engaged in providing primary care (family physician, general internist or general pediatrician).

In the 1970-71 academic year, 84 Iowa physicians (from 42 communities) served as preceptors to students from The U. of I. College of Medicine. These practitioners acquaint the students with medical practice as it occurs away from the academic center. The experience allows the students to see a medical office or clinic in operation, to observe the kinds of relationships a practicing physician has with his patients, his office personnel, his colleagues and his community as a whole. And of course it supplements the student's medical knowledge.

As a preceptor, the host physician finds himself in the role of teacher and as such is a contributor to medical education. He stands to profit from the close association with a young and active medical student. The preceptors and the students generally regard this as a rewarding experience. It is an example of the way in which the College and the profession work together in the interest of medical education.

SENIOR STUDY

Junior medical students are counseled by Department of Family Practice faculty on courses which may be taken in the senior year of intensive study. The Department has developed 12 courses in family practice from which senior students may elect several. These include, for example, special study at The U. of I., assignment to the emergency rooms of Broadlawns Polk County Hospital in Des Moines or to St. Luke's-Mercy Hospitals in Cedar Rapids, etc.

In addition to the aforementioned away-from-the-campus learning experiences, the College is proposing a state-wide community-based medical education program. To accomplish this the College proposes further working relationships with practicing physicians, clinics and hospitals throughout the state. The participating communities are to be identified as Area Health Education Centers and would have formal affiliation with the College. Each Center would provide educational programs for medical students and residents in family practice. This approach is certainly a further and significant attempt to provide the training opportunities necessary to retaining more physicians in Iowa.

In this *University Issue* salute to the College of Medicine, we have acknowledged those new and continuing programs which are seeking to orient medical students toward Iowa. These include the opportunity to work in Iowa hospitals and with Iowa physicians in the post-freshman summer, early exposure to patients, involvement of the Department of Family Practice throughout the four-year medical curriculum, the valuable preceptorship with an Iowa physician, and the opportunity for a 12-week clerkship in a community hospital during the fourth or senior year.

The broad and effective work of the College of Medicine in many areas, those noted, and others such as continuing education and research, deserves recognition and support, not just in April, but throughout the year.—DN

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FOREIGN PHYSICIAN seeks a position as an Internist in a group practice. Qualifications include university training in internal medicine (3 years) with sub-specialty fellowship in endocrinology (3 years). Fully licensed in Iowa. If interested write Box No. 1467, Journal of the Iowa Medical Society, 1001 Grand Avenue, West Des Moines, Iowa 50265.

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IMMEDIATE OPENING for Ob-Gyn, Internal Medicine, and Orthopedic specialties to establish successful practice with 14-man multi-specialty group. Excellent group benefits; pension plan; modern clinic facilities; progressive community with excellent educational system including two colleges; city population 35,000; good recreational facilities; each specialty must be board eligible or certified; young man with military obligation completed. Contact: Business Manager, The Manitowoc Clinic, 601 Reed Avenue, Manitowoc, Wisconsin 54220.

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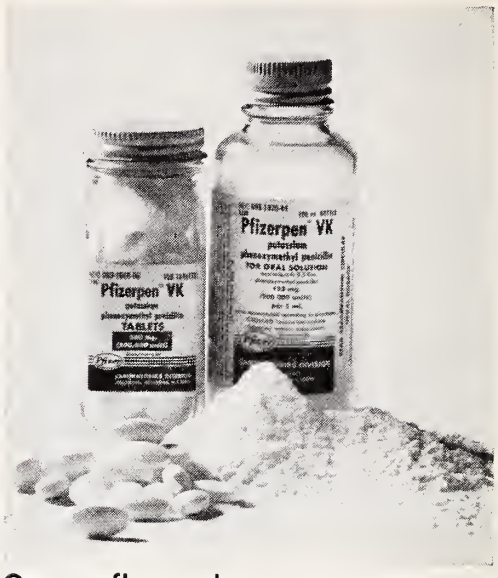
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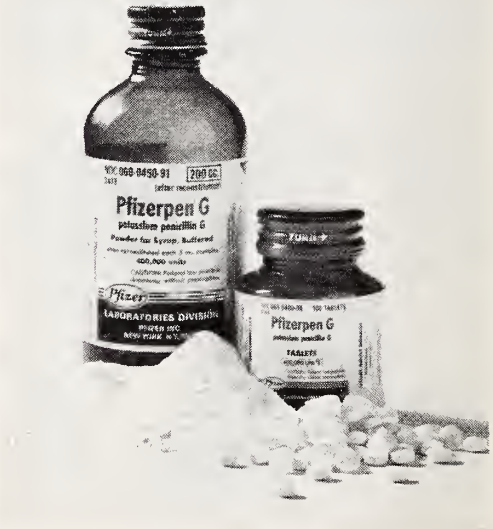
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Doctor's Business

by LARRY E. LEAVERTON

AN OFFICE MANUAL CAN INCREASE EFFICIENCY

Medical practice is becoming more and more complex—more employees per doctor, employee turnover, increased delegation and a need for good practice management. This complexity is necessitating some written office procedures and policies. This written information is known by various names. Some call it an SOP (standard operating procedures) manual, some a policy manual, an office bible, or simply an office manual. Whatever the name, it can be simple or elaborate. It should be loose leaf for easy revision and additions.

Why this need?

The bookkeeper-receptionist at Doctor A's office goes to the hospital for emergency surgery with a projected absence of two weeks.

Doctor B's office nurse informs him that her husband has been transferred to Chicago and she has to leave immediately to find housing.

Doctor C, to cope with his increasing patient load, decides to delegate additional duties and responsibilities to his nurse.

Doctor D is a member of a four-man group. He hears the employees complaining about different answers they get from the other doctors.

Doctor E's business office assistant is retiring after 30 years on her job. She knows everything about everything in the office but the information is filed in her head.

Doctor F says, "I have to explain over and over how I want my appointments handled. Why can't they remember?"

The answer—*put it in writing for easy reference.* It will help your present employees, the training of any part-time or full-time replacements, and it will save much time in explaining and reexplaining questions that come up. Additionally, in committing some of your policies to writing, you will aid yourself in evaluating the way you are doing things.

What should be included?

There are many items that could go into an office manual. Some of the following items could be included:

- Duties and responsibilities of the various job classifications. List primary and secondary duties. Also whether daily, monthly or periodically.
- The need for cooperation and teamwork among employees.
- Policy on handling appointments, telephone calls and emergencies.
- Credit and collection policies.
- Bookkeeping procedures—accounts receivable, statements, bank deposits and paying bills.
- Samples of forms used and instructions as to their use.
- Terminology used in the particular specialty involved.
- Patient education materials used.
- Sample letters and completed specimen insurance forms.
- Filing procedures and record retention.
- Ordering supplies, source and quantity; repair of equipment.
- Instructions on receiving and dismissing patients.
- Policy on office hours, time off, sickness, vacations, holidays, etc. (This will be in the written personnel policy but should be included in the office manual also for reference.)
- Policy on professional courtesy.
- List of decisions on policy reached at staff meetings.

The physician who prefers to make every decision as it comes up, the office with no employee turnover, or the physician who has only one employee, never ill or absent, who will stay until they both retire, may not need an office manual. The typical office however will benefit.

An office manual won't provide all of the answers but it will assist in maintaining a smooth running office.

Mr. Leaverton is Director of Research and Development for Professional Management Midwest.

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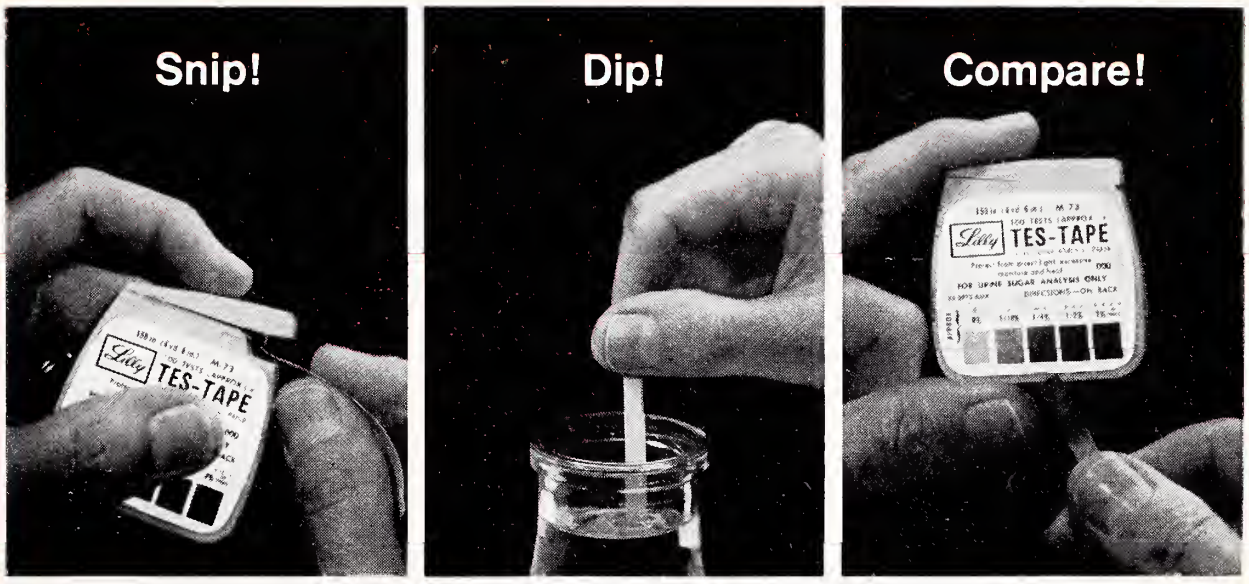
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Contraindications: Patients with known hypersensitivity to the drug.
Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards.
Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.
Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.
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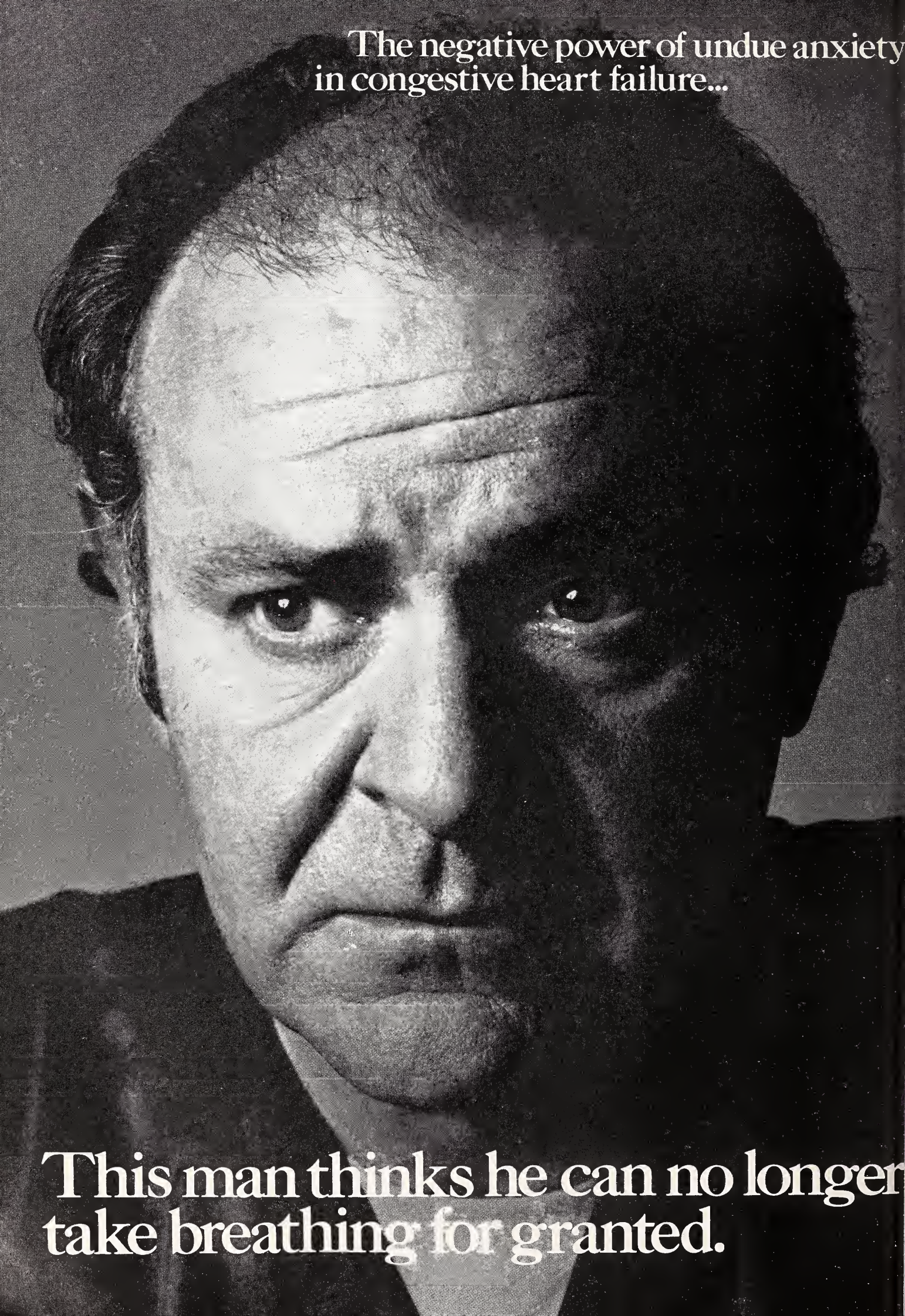
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MAY 1972


The negative power of undue anxiety
in congestive heart failure...
This man thinks he can no longer
take breathing for granted.

Typical of many patients with congestive heart failure, he also suffers from severe anxiety, a psychic factor that may influence the character and degree of his symptoms, such as dyspnea. His apprehension may also deprive him of the emotional calm so important in maintenance therapy.

Aid in rehabilitation

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Concomitant use with primary agents

Libritabs is used concomitantly with certain specific medications of other classes of drugs, such as cardiac glycosides, diuretics, antihypertensives, vasodilators and oral anticoagulants, whenever excessive anxiety or emotional tension adversely affects the clinical condition or response to therapy. Although clinical studies have not established a cause and effect relationship, physicians should be aware that variable effects on blood coagulation have been reported very rarely in patients receiving oral anticoagulants and chlordiazepoxide HCl.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Indicated when anxiety, tension and apprehension are significant components of the clinical profile.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

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President's Page



The rhetoric and occasional invective which characterize the House of Delegates are concluded. Decisions have been reached and policies have been established by this body. Not all of the decisions will be popular with all of the members, in fact not with all of the officers, but they were made in a democratic process, and they will remain in effect until changed by further official action.

Changes in the practice of medicine occur daily and will become more frequent as society's demands increase. I remind you, however, that progress occurs only through change. It is imperative, therefore, that each of us become involved in the day to day functions of organized medicine from the local society level, to the IMS and the AMA. Support your society with your activity and counsel. In this way you will be involved in directing the changes which appear inevitable. This will serve to protect your personal interest in medical practice. This is not the time to remove your support or your membership from organized medicine.



President

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IOWA Medical Miscellany

PRESIDENT LISTER INSTALLED . . . Ottumwa surgeon K. E. Lister, M.D., was installed as 1972-73 president of the Iowa Medical Society on April 26. Dr. Lister succeeds L. J. O'Brien, M.D., Fort Dodge. Named president-elect by the 1972 House of Delegates was Rubin H. Flocks, M.D., Iowa City. Dr. Flocks has been vice-president this year. Other Society officers elected or re-elected by the House include Erling Larson, Jr., M.D., Davenport, vice-president; V. L. Schlaser, M.D., Des Moines, Secretary; L. D. Caraway, M.D., Amana, speaker, House of Delegates; H. L. Skinner, M.D., Carroll, vice-speaker; J. F. Paulson, M.D., Mason City, trustee; L. W. Swanson, M.D., Mason City, and H. J. Smith, M.D., Des Moines, AMA delegates; and the following councilors: J. M. Rhodes, M.D., Pocahontas; P. J. Monnig, M.D., Sioux City; H. E. Wichern, M.D., Des Moines; A. M. Dolan, M.D., Waterloo, and E. E. Gamet, M.D., Lamoni.

SOCIETY AWARDS . . . Donald O. Maland, M.D., a family physician in Cresco, is the Society's 1972 Merit Award winner. Announcement of his selection was made at the Annual Meeting Banquet April 25. Dr. Maland last year year concluded 12 years as secretary of the IMS Grievance Committee. He is a 1943 graduate of The U. of I. College of Medicine. Mr. E. Howard Hill, of Minburn, is recipient of the 1972 John F. Sanford Award; this is presented to a layman who has performed meritorious service in the health field. Mr. Hill serves on the Boards of Directors of Iowa Medical Service (Blue Shield) and the Scanlon Medical Foundation/Iowa Medical Society. The 1972 recipient of the Ben T. Whitaker Award is William C. Keettel, M.D., professor and head of the department of obstetrics and gynecology at The U. of I. College of Medicine. This award is given by the Interstate Postgraduate Medical Association of North America and is reserved for physicians who have made outstanding contributions to medical education.

MEMBERSHIP OPINION POLL . . . Iowa physicians have been urged to speak their piece on the critical basic issues affecting the practice of medicine. Such an opportunity was available last month in the form of a 1972 AMA Membership Opinion Survey. The questionnaire may still be completed and returned. Findings are to be tabulated for presentation at the AMA Annual Convention in June. They will be used to guide the AMA House of Delegates and Board of Trustees in formulating policies and programs which the majority of members support.

REGARDING CONTROLLED SUBSTANCES . . . Word from the Bureau of Narcotics and Dangerous Drugs is that effective May 1 only Official BNDD Order Forms will be valid for transactions involving Schedule I and II controlled substances. Physicians may obtain new forms by forwarding the old type IRS order form requisition (IRS Form 679) to the BNDD Registration Branch, P. O. Box 28083, Central Station, Washington, D. C. 20005. The registrant's complete, nine-character BNDD registration number must appear on the form. IRS Form 679 will not be honored as a valid requisition for official order forms after April 30. Any registrant who does not now have an IRS requisition, and who desires the new order forms, is required to complete form BND 222D and forward it to the Registration Branch. The BND 222D forms may be obtained from the Registration Branch or any BNDD Regional Office.

OPEN STROKE UNITS . . . Hospitals in Waterloo, Ft. Dodge and Sioux City have opened stroke units in February and March. The units are utilizing a team concept with involvement by physicians, nurses, therapists and social workers. The Iowa Heart Association has staffed each unit with a nurse trained in rehabilitation. The entire program is funded by a grant from the Iowa Regional Medical Program.

HEART STATISTICS . . . Diseases of the heart and blood vessels will claim about 17,600 lives in Iowa in 1972. According to the Iowa Heart Association, this figure will constitute about 57 per cent of the Iowa deaths from all causes this year. More than 347,000 Iowans (1 of every 8) have some form of heart and blood vessel disease, including 270,000 who suffer from hypertension. The total 1972 economic costs for cardiovascular diseases in Iowa are estimated at $222.3 million.

SCANLON FOUNDATION . . . A record year for the Scanlon Medical Foundation/Iowa Medical Society was reported last month to the 1972

(Please turn to page 254)

State Department of Health

ARNOLD M. REEVE, M.D., M.P.H., Commissioner

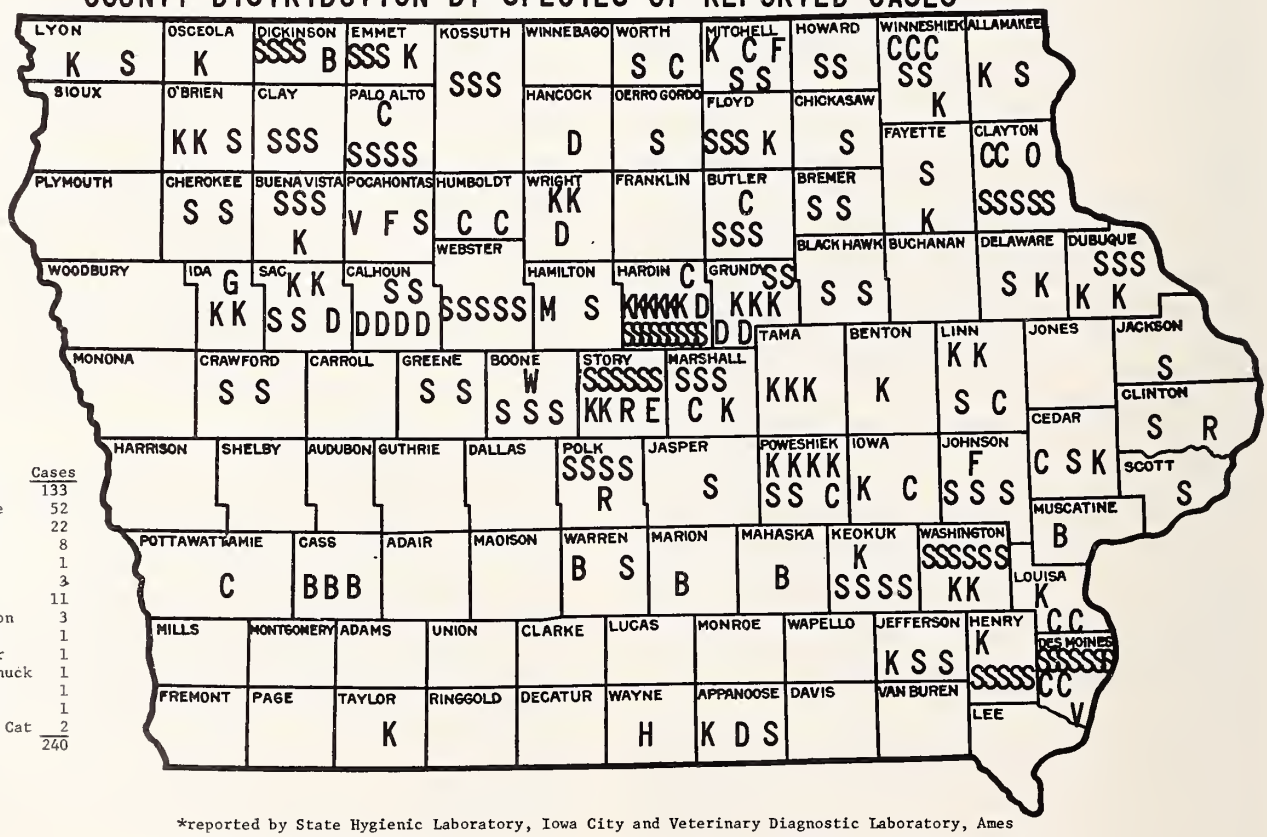
RABIES IN ANIMALS IN IOWA

Rabies in animals was reported from 68 counties in Iowa in 1971. A total of 240 cases were recorded which is almost two times higher than the 136 cases reported in 1970. In 1969 there were 103 cases. In general all sections of the state were involved with somewhat fewer cases in the southwest. Since these reports refer only to laboratory confirmed cases they represent only a fraction of the actual incidence of the disease. For various reasons many obviously sick animals of various species suspected of having rabies are not submitted for examination or recording.

A marked increase in dog rabies was noted with 11 cases reported in 1971. In 1970 there were 3 cases and for 24 consecutive months before June 1970 no cases of dog rabies were reported. Dog rabies in 1971 was reported in February, April, May, June, July and December in 7 different counties. None of the dogs had been vaccinated. In two instances rabies developed in litters of puppies after they had been attacked by skunks.

State law requires that owners have their dogs vaccinated against rabies when the dogs reach 6 months of age. For maximum protection vaccination at an earlier age with a booster dose at 6 months of age is suggested.

RABIES IN ANIMALS IN IOWA IN 1971
COUNTY DISTRIBUTION BY SPECIES OF REPORTED CASES*



Legend	Cases
S-Skunk	133
K-Cattle	52
C-Cat	22
B-Bat	8
H-Horse	1
F-Fox	3
D-Dog	11
R-Raccoon	3
E-Sheep	1
G-Badger	1
O-Woodchuck	1
W-Swine	1
M-Mink	1
V-Civet Cat	2
Total	240

*reported by State Hygienic Laboratory, Iowa City and Veterinary Diagnostic Laboratory, Ames

Preventive Medical Service
Veterinary Public Health Division

March 18, 1972

SUDDEN INFANT DEATH SYNDROME AS A CAUSE OF DEATH

The following directive was issued March 23, 1972 by the Commissioner of Public Health:

Under authority of Sections 144.4 and 144.5, Code of Iowa 1971, this is to designate *Sudden Infant Death Syndrome* as the nomenclature to be used when certifying cause of death in those circumstances described below.

When death occurs in an apparently normal infant (age one week to one year), who died unexpectedly and suddenly, with lack of physical or autopsy evidence adequate to explain the death; *Sudden Infant Death Syndrome* should be entered on the death certificate in Part I, Cause of Death. Of course, when the person legally responsible for certification of the cause of death (attending physician or medical examiner) determines that other terminology will more appropriately describe the cause of death in a specific case, that terminology should be entered.

If there is evidence of other pathological processes which are insufficient adequately to explain the death, the *Sudden Infant Death Syndrome* nomenclature can be supplemented by including such information in Part II, *Other Significant Conditions.*

This step is intended to establish *Sudden Infant Death Syndrome* as a definitive disease entity.

APPROVE RULES FOR NURSING & CUSTODIAL HOMES

The State Legislative Rules Review Committee last month approved new regulations governing nursing and custodial homes in Iowa. In doing so, the Committee established 1975 as the year by which custodial home operators must meet a new space requirement. By then there must be 80 square feet of floor space per bed for each resident. At present, only 60 square feet of floor space per bed is necessary.

The new regulations have been devised by the State Department of Health and are the first revisions since 1957.

The regulations are based on a law which became effective in 1971 and which creates seven classes of health care facilities: adult foster home, boarding home, custodial home, basic nursing home, intermediate nursing home, skilled nursing home and extended care facility. Of particular interest to physicians is the requirement that a physician certify that an individual admitted to any of the first three care facilities does not need nursing care. It is required further that the physician certify in the other four levels that the patient is in need of no greater care than the facility can supply.

Morbidity Report for March 1972

Diseases	March 1972	1972 to Date	1971 to Date	Most March Cases Reported From These Counties
Brucellosis	3	6	3	Buena Vista, Cherokee, Dubuque
Cat Scratch Fever	1	1	1	Dubuque
Chancroid	3	4	1	Page
Chickenpox	1451	3872	2865	Dubuque, Linn, Polk
Conjunctivitis	162	250	85	Jackson, Warren, Washington
Encephalitis Mumps	1	1	0	Pottawattamie
Gastrointestinal viral infection	1314	3216	3760	Cerro Gordo, Dubuque
German measles	106	197	322	Greene, Linn, Wapello
Gonorrhea	670	1618	1279	Black Hawk, Linn, Polk, Scott
Hepatitis				
Infectious	29	74	94	Polk, Scott
Serum	4	6	7	Johnson, Linn, Scott
Histoplasmosis	2	10	7	Scott, Wapello
Impetigo	67	172	142	Grundy, Linn, Polk
Infectious mononucleosis	127	288	343	Johnson
Lymphogranuloma Ven.	2	2	0	Johnson, Linn
Measles	76	266	563	Black Hawk, Johnson, Washington
Meningitis H. influenza	1	1	1	Boone
Mumps	1455	3684	1528	Dubuque, Henry, Linn
Pneumonia	72	280	273	Scott
Rabies in Animals	25	63	68	Scattered
Rheumatic fever	5	12	20	Calhoun, Dubuque
Ringworm, body	9	35	58	Allamakee, Polk
Roseola	1	4	2	Lee
Salmonellosis				
S. blockley	2	2	0	Scott, Woodbury
S. enteritidis	1	1	2	Dubuque
S. heidelberg	3	4	0	Pottawattamie
S. newport	3	3	6	Polk, Woodbury
S. reading	1	1	0	Cherokee
S. typhimurium	4	9	6	Black Hawk, Jasper, Polk, Pottawattamie
S. typhimurium var. copenhagen	1	1	0	Dubuque
Shigellosis S. sonnei	22	66	15	Black Hawk
Streptococcal infections	922	2529	2573	Johnson
Syphilis	40	116	153	Scattered
Toxoplasmosis	1	1	0	Scott
Tuberculosis, active	7	22	44	Scattered
Whooping cough	1	12	6	Black Hawk

Radiology Window

by ENRIQUE CUBILLO, M.D.

CASE NO. 2

The chest films are of an asymptomatic 57-year-old woman taken as part of a routine annual physical examination. The patient acknowledged she smoked one pack of cigarettes a day.

The differential diagnoses are as follows: (1) Bronchogenic cyst, (2) Loculated empyema or fluid, (3) Carcinoma of the lung, (4) Sarcoidosis, or (4) Bronchial adenoma.

Please make your own judgment and turn to page 252 for information as to the correct diagnosis.

This radiologic feature has been prepared and provided by Enrique Cubillo, M.D., who is associated with the Department of Radiology at Mercy Hospital in Des Moines.



Figure 1. PA Chest

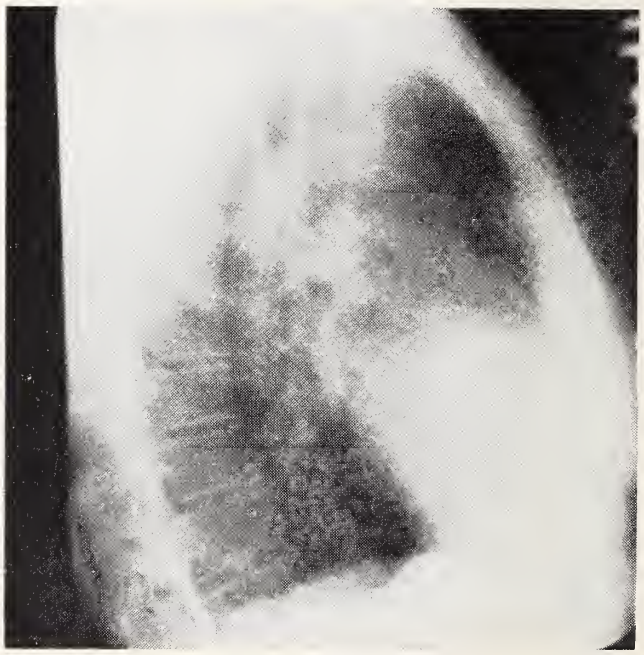


Figure 2. LAT Chest

NAME DR. ZIFFREN

The appointment of Sidney E. Ziffren, M.D., to head the Department of Surgery at The U. of I. College of Medicine was announced in April. Dr. Ziffren has been a U. of I. faculty member since 1947 and a full professor of surgery since 1953.

Dr. Ziffren is nationally known for the surgical management of burn patients as well as special surgical problems of the aged. He has headed the Division of Trauma and Reconstructive Surgery since it was formed in 1965. He is a graduate of the University of Illinois.

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SCIENTIFIC ARTICLES

The Abused Child

ANDRÉ D. LASCARI, M.D.
Iowa City

THE PROBLEMS OF DEALING with abused children are many and complex. Although it is not a new problem it has only been recognized and defined in the past 10 years. It has been our experience, and that of others, that the diagnosis and management of abused children is frequently misunderstood by the medical and legal professions. It is the purpose of this paper to outline briefly the various aspects of the abused child problem.

The abused child is not an uncommon problem. As many as 250 reports of suspected cases per million population per year are filed in some of our large cities. The cases come from a cross section of the population including professional people. Contrary to what one might expect only about 2 per cent of abusing parents are actually psychotic. Management of an abused child situation must include an understanding of the parents and what caused them to abuse their child.

PSYCHODYNAMICS

Dr. Carl Pollock[1] has pointed out that parents of abused children have often been reared themselves with the responsibility of taking care of their own parents' needs. When they met their parents' expectations they acquired a sense of self-esteem. If they failed to meet these expectations they were beaten and/or hated and thereby made to feel worthless and unloved. As parents they have a resulting feeling of emptiness and loneliness and possess a deep need for someone. For this reason these parents in turn expect so much of their own children, they acquire a sense of self-righteousness about the abuse. Since the same thing happened to them they don't consider it bad. They, as children, were not permitted to grow and mature in the normal childhood process. Such a parent obviously would have trouble dealing with his or her own children.

Abnormal conditioning of parents during their childhood does not necessarily lead to abuse. In addition, there is usually a precipitating crisis in which the abusing parent is suddenly without someone who could be of help. The mother may become angry with her husband and fail to find help from someone else such as a sister or mother. The mother may then turn toward her child for support and comfort. As one mother has noted, referring to the child, "this is my tranquilizer." If the child is sick or irritable and not able to supply the mother's need the parent then feels justified to "shake the child up." This is when the abuse occurs. In essence, she expects the child to be an organized human being and responsive to her.

Dr. Lascari is an associate professor in the Department of Pediatrics at The U. of I. College of Medicine. This paper was prepared for a University symposium on the subject of child abuse.

THE SCANLON MEDICAL FOUNDATION/IOWA MEDICAL SOCIETY HAS DESIGNATED THIS ARTICLE AS THE HENRY ALBERT SCIENTIFIC PRESENTATION FOR THE MONTH OF MAY, 1972.

Thus, abuse is dependent on: 1) the underlying potential, 2) a crisis, 3) ability of the child to supply the parent's need at the time of crisis. Sometimes the abusing parent may be a good parent to the children until a crisis appears. Other parents are consistently cruel to their children. Abuse is often inflicted by one parent. The other parent may be a behind-the-scene cooperator and both may vehemently proclaim their innocence. Occasionally, the parent may admit the abuse but be unable to remember details of what happened at the time of injury. As a rule, these parents love their children contrary to what one might expect.

How much the child is abused depends on how well he is able to adapt to the role the parent is demanding of him. If he is repeatedly battered he comes to believe he is a bad child and is only getting what he deserves. Because of this abused children are often loyal to their parents. Only one child in a family may be singled out for abuse. The child may not be gratifying to the parent and is written off as being of no use or help. The age group of abused children is usually under 3 years of age with 50 per cent under 1 year. There is an equal sex incidence.

DIAGNOSIS

The overtly battered child is at the extreme end of the spectrum of abused children. An infant or child can be abused by depriving it of the normal emotional parental affection it needs. About 30 per cent of the infants admitted for failure to thrive are not thriving because their parents are just not giving them enough food. Sometimes this is done out of ignorance, more commonly it is overt neglect. Typically, when hospitalized for a diagnostic workup these youngsters rapidly gain weight and the diagnosis becomes obvious. Often these neglected children will end up being battered children.

The mother who repeatedly presents an infant one to two months of age with nonexistent complaints is likely to be a parent who will batter the child.[2] If such a child is brought to a physician or to an emergency room two to three times within a few days it is recommended the child be admitted and the mother and child be thoroughly evaluated. By her repeat visits the mother is really saying, "Please help me." The parent may say the child is not gaining weight when it actually is. She may state he has a rash when no rash is present. She may report he cries all the time when on examination he is peaceful and quiet. The mother may be asked, "Are you afraid you might hurt your child?" She may readily admit to such fears. If asked when discipline should be started she may respond unrealistically at two to six weeks of age. This kind of response would strongly suggest she is a parent who may batter her child. It is the opinion of various authorities that abuse should be suspected when a history is incompatible with the type of injury. For example, suspicion would be aroused with the report that a baby fell down a *few* stairs and yet is covered all over with bruises. Similarly, one would wonder about a child who supposedly fell down the stairs and sustained a spiral fracture rather than a transverse fracture of the bone. Sometimes the parent may report the child is clumsy and bruises easily. Yet when he is observed on the ward by the physician and nurses he is noted not to be particularly clumsy or prone to bruise.

Most accidental injuries are treated by the physician as single episodes. This is accomplished with no specific attention to the environment in which the accident occurred. Unless the signs of abuse are obvious or the history is blatantly deficient the physician does not consider the possibility of abuse.[3] Approximately 10 per cent of children under 6 years of age seen for injuries in the emergency room received their trauma by being physically abused.[4] Abused children usually suffer from fractures, dislocations, head injuries, bruises or burns. They may have abdominal injuries such as rupture of the small bowel, lacerations of the liver, perforation of the stomach or duodenal hematomas. Some of these children may show no evidence of prior abuse, and a negative skeletal survey for previous fractures in no way rules out the presence of abuse.

When child abuse is suspected, the child should be admitted to the hospital and consent should be obtained from the parents for color and black and white pictures if there are any

significant findings on inspection. If there is a history of bruising a complete bleeding history should be taken on the patient and the family. An appropriate coagulation workup would consist of a platelet count, bleeding and clotting time, prothrombin time, partial thromboplastin time and a Rumpel-Leede test. A complete x-ray survey should be done including the long bones, the skull, and chest. If the x-rays are negative and trauma is strongly suspected the x-rays should be repeated in two or three weeks for it takes this long for calcification to occur. If abuse is documented in the child an investigation should be made of the other children in the family.

The typical x-ray findings show a predilection for the epiphysis of the arms and the legs as the extremities are used as the handles for vigorous shaking.[5] There is often an exaggerated periosteal reaction because of the loose attachment of the periostium in children. Frequently there is a multiplicity of lesions often at different stages of healing. There may be subdural hematomas without evidence of skull fracture or external trauma.

MANAGEMENT

If the child is obviously battered when first seen the physician should inform the parents he is required by law to report children who have non-accidental injuries and that an investigation will be carried out. As Pollock[1] has noted, the worst thing one could say to the parent at this time is, "you are a bad parent." This hits them at the source of their self-esteem and this is what is at issue with them. Therefore the menacing accusing finger should be withheld. Most of these parents want help but initially they may be quite resentful. When a sincere inquiry is made as to how they are doing they are often suspicious, they find it difficult to believe anyone is really interested in them. They never have done anything for anyone else, they have now done something everybody considers terrible and therefore they are obviously distrustful.

When the investigation by the county department of social welfare is completed and the parents and child have been evaluated a decision must be made as to whether it is safe for the child to return to the home. Often it is best to put the child in a foster home for a 3 to 6 month period while the parents receive either psychiatric help or help from a "foster grandmother."[2] In about 70 per cent of the cases the child should eventually be able to return home. If the child is initially removed from the home it must be emphasized that this is not a punitive measure but is being done to help the parents. If the parents legally contest the removal of the child from the home the objective of court action should be only to prove that the child is not receiving proper care so he can be declared a dependent child. Criminal prosecution of the parents does not help. The parent may be sent to prison for a year or so and upon release he or she will often continue abusing the child. The threat of the court is no deterrent to future battering.

The aim of therapy for parent or parents is to provide the mothering which they need so badly. They are often lonely and isolated and have no one to turn to with their problems or unhappiness. The therapist may be a psychiatrist, pediatrician, psychologist, or a social worker; the most significant aspect is the personal input to a deprived adult. The parent is helped to let go of his child as the source of all satisfaction and to transfer his or her needs to someone else. Treatment should be available as long as the parents feel they need it. It is when treatment is terminated prematurely that children are most often rebattered. A court appointed attorney should represent the child's interest.

In many cases the diagnosis may not be clear as to the presence or absence of abuse. A compromise situation might be to offer the family support with a visiting nurse who would go into the home at least once or twice a week to offer counsel as well as to check on the condition of the child. Parents often will react more favorably to a nurse whom they view as helpful rather than workers from a protective agency whom they view as being accusing, judging and prying.[6]

A Child Abuse Committee has been organized at University Hospitals to evaluate abused children who have been referred for evaluation. The child is admitted to the hospital and after the evaluation a decision is made as to whether abuse has occurred and if

so, what recommendations should be made about the disposition of the child and treatment for the parents.

THE IOWA LAW

Iowa law states: "Every health practitioner who examines, attends or treats a child and who believes or has reason to believe that the child has had physical injury inflicted on him as the result of abuse or willful neglect shall make a report."

If the physician examines the child as a member of the staff of a hospital or similar institution, he should immediately notify the person in charge of the hospital or his designated representative, who will then make the report. The physician or any other person who suspects that a child has had physical injury as a result of abuse or neglect is immune from liability. The oral report should be made to the county department of social welfare and a written report should be made to the same department and the county attorney. The report should state: "1) the name and home address of the child and his parents or other persons responsible for his care, 2) the child's present whereabouts if not the same as his home address, 3) the child's age, 4) the nature and the extent of the child's injuries including any evidence of previous injuries, 5) any other information which the person making the report believes might be helpful in establishing the cause of the injuries and the identity of the person or persons responsible therefor."

An investigation will then be carried out by the county department of social welfare and a report must be made within 96 hours after the initial report. Copies of the report are sent to the juvenile court, the county attorney and the appropriate law enforcement agency.

SUMMARY

Parents who inflict abuse on their children often have been abused themselves as children and a vicious cycle evolves. Abuse depends on the underlying potential in the parent, the presence of a crisis and the ability of the child to supply the parent's need. When abuse is suspected a report should be made to the department of social welfare. The physician or any other person making the report in good faith is immune from liability. If it is recommended that the child be removed from the home and the parents contest the removal, the approach should be to prove that the child is not getting adequate care and have him declared a dependent child. Prosecution of the parents is counterproductive and not recommended. The abusing parent requires considerable support in order to let go of a child who is the source of all satisfactions and to transfer these needs to someone else. It is imperative that physicians and lawyers become adequately informed on this problem so that adequate care may be given these children and their parents.

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FOR PEDIATRIC NURSES

A Training Program for Pediatric Nurse Practitioners (PNP) is to be offered by The U. of I. Colleges of Medicine (Pediatrics Department) and Nursing during the 1972-73 academic year. Intent of the program is to prepare registered nurses already in child health care for expanded clinical roles, particularly in preventive health care and child health supervision.

The 16-week HEW-funded course will require two days per week in-residence at the University for academic and clinical experiences. Supplementary assignments will be undertaken at the participant's place of employment.

No tuition will be charged. The first class will begin approximately August 28 and end prior to Christmas. For further information and applications, contact S. S. Kripke, M.D., Department of Pediatrics, U. of I. College of Medicine, Iowa City.

PHYSICIAN'S ASSISTANT—*Duke trained in thoracic & general surgery. Available September 1 . . .*

PHYSICIAN'S ASSISTANT POSITION WANTED—*4 years medic exp. in Air Force. Emerg. rm., EKG's, Surg. asst., etc. One yr. college. Age 23 . . .*

THESE ADVERTISEMENTS have appeared recently in the classified section of the JOURNAL OF THE IOWA MEDICAL SOCIETY. They illustrate the increasing desire among variously trained individuals to obtain employment in the health field.

What's prompted this flurry of interest? Various factors have. The interest of many has been aroused by the widely-discussed concern over medical manpower. By using skills acquired perhaps in the military, and/or, in most cases, by obtaining training in a new type of educational program, these individuals see a way of serving in a gainful and life-serving capacity.

As these individuals appear and as various health manpower factors exert influence and manifest change in what the public has come to accept as the way to obtain medical care, the need for careful planning and sound decision-making becomes crucial.

Iowa, to its credit, is in the vanguard of states which have enacted legislation to guide the arrival of the physician's assistant. The General Assembly added Chapter 148B to the Iowa Code in 1971 and in it assigned to the State Board of Medical Examiners responsibility for the physician's assistant. The Iowa Medical Society believes the State's lawmakers acted wisely in placing this responsibility with the Medical Examiners.

The advent of the physician's assistant has stimulated various pertinent questions. What responsibility can the physician delegate? To what limits can the "hands of the physician" concept be extended? In the Society's analysis of this important subject attention has been given to the legal basis for (1) defining the practice of medicine; (2) discussing the exemptions from the medical practice act; (3) deciding when the unlawful practice of medicine has been pursued by an unlicensed person; (4) determining the extent of allowable delegation by a licensed physician to a non-physician; and (5) applying the salient provisions of the physician's assistant law. The balance of this discussion is drawn from an analysis of the subject made by the Society's legal counsel. The points set forth numerically in this paragraph correlate with the elaboration which follows.

1. A PERSON HOLDING A LICENSE TO PRACTICE MEDICINE AND SURGERY IN IOWA MAY PRACTICE THE PROFESSION IN ALL OF ITS BRANCHES AND USE ANY METHOD OF HEALING HE MAY CHOOSE.

IN THE PUBLIC INTEREST

Iowa
a place to grow

This statement is based on an evaluation of appropriate sections of the Iowa Code as well as language in various court decisions. Section 148.1 of the Code says the following classes of persons may engage in the practice of medicine and surgery:

1. Persons who publicly profess to be physicians or surgeons or who publicly profess to assume the duties incident to the practice of medicine or surgery.

2. Persons who prescribe, or prescribe and furnish medicine for human ailments or treat the same by surgery.

3. Persons who act as representatives of any person in doing any of the things mentioned in this Section.

2. A PERSON MAY BE EXEMPT FROM THE IOWA MEDICAL PRACTICE ACT UNDER CERTAIN CIRCUMSTANCES.

Iowa law specifically exempts certain individuals

PROFESSION SHOULD DECIDE DELEGABLE TASKS

in its medical practice provisions. For example, persons who advertise or sell patent or proprietary medicines are not included in this classification. In addition, other exemptions pertain to (1) medical students, (2) those licensed to practice other designated health professions, and (3) physicians in the military or public health service or those licensed in another state "when incidentally called into this state in consultation."

Unlicensed individuals who act in a "hands of the physician" (aides, technicians, etc.) capacity are not expressly exempted from the medical practice act, but have been exempted as a matter of common law in at least certain circumstances.

3. IOWA LAW CLEARLY PRECLUDES THE PRACTICE OF MEDICINE BY AN UNAUTHORIZED PERSON.

It is reassuring to point out that Iowa law, as it has been interpreted through the years, has been effective in preventing persons who are not licensed or otherwise authorized to act, from engaging in any aspect of the practice of medicine.

No person can engage in the practice of medicine and surgery in Iowa unless he meets the requirements for and obtains a license from the State Department of Health. Explicit provisions in the Iowa Code set forth the penalties for the unlicensed practice of medicine.

4. THERE IS NO VIOLATION OF THE MEDICAL PRACTICE ACT WHEN A PHYSICIAN DELEGATES CERTAIN FUNCTIONS TO A NON-PHYSICIAN, BUT HE CANNOT LAWFULLY DELEGATE (a) ACTUAL DIAGNOSIS OF HUMAN AILMENTS; (b) THE PRESCRIPTION OF TREATMENT THEREFOR; or (c) THE PERFORMANCE OF CERTAIN MEDICAL OR SURGICAL PROCEDURES.

The State of Iowa recognizes the common law right of a physician to delegate various medical acts to those acting under his supervision or direction. It has always been clear that a physician could not delegate the actual diagnosis of a patient's ailment or the prescription of treatment therefor. Within these parameters, no serious questions have been raised as to the right of the physician to assign various tasks to others. This has been so because the physician has usually provided *personal* supervision and direction, has known the capabilities and limitations of the non-physician and has been aware of his own professional responsibilities, including liability for the negligence of the non-physician who acted as his agent.

In recent years, however, questions have been raised as to the extent to which duties could lawfully be delegated to registered nurses and others in connection with such procedures as intravenous administration of fluids and medication, lumbar punctures, intratracheal suction, inhalation therapy, suturing of superficial lacerations, etc. Also, inquiries have been received as to coronary care units, hemodialysis units, emergency care, etc. The Iowa Medical Society and Iowa Nurses Association have issued two "joint statements" intended to serve as guidelines in some of these areas. One of these recognizes the validity of "standing orders" as constituting a valid delegation of authority under certain circumstances.

The recently-enacted physician's assistant law expressly recognizes "a physician's existing right to delegate various medical tasks to aides, assistants or others acting under his supervision or direction." The law also alludes to "those tasks which can be so delegated" but does not attempt to define them.

It is the opinion of the Society's legal counsel that these "delegable tasks" are best decided by physicians rather than lawyers. He recommends the medical profession continue to develop guidelines as to delegation in doubtful cases and that, if necessary, consideration be given to the promulgation of appropriate regulations by the State Board of Medical Examiners of the State Department of Health. He believes the Courts would be greatly influenced in determining delegation questions by evidence not only as to the importance of the assigned task, the skills required and the risks to the patient but particularly as to the acceptance or non-acceptance of such delegation by the medical profession.

5. UNDER PRESENT IOWA LAW A PHYSICIAN'S ASSISTANT MAY BE AUTHORIZED BY THE BOARD OF MEDICAL EXAMINERS TO PERFORM MEDICAL SERVICES UNDER THE SUPERVISION OF A LICENSED PHYSICIAN OR PHYSICIANS APPROVED BY THE BOARD, EVEN THOUGH THE SUPERVISING PHYSICIAN IS NOT PERSONALLY PRESENT.

The physician's assistant law enables these workers to serve as the "hands of the physician" in ways acceptable to the Board of Medical Examiners but which could not otherwise be delegated without violating the Medical Practice Act. The assistants must have the approval of the Board of Medical Examiners to carry out their duties and they must be under the supervision of one or more physicians who are approved by the Board to supervise such an assistant. Thus, the Board of Medical Examiners has the expressed authority to use its sound discretion to assure the physician's assistant program operates "in a manner which does not endanger the health and welfare of patients who receive services within the scope of the program."

Passage of the physician's assistant legislation has been a good development. It strengthens the "hands of the physician" concept. And it assigns to the medical profession, through the Board of Medical Examiners, the important matter of determining the extent to which certain tasks, not otherwise delegable under Iowa law, may be delegated to those who are authorized to serve as physician's assistants.

Follow-Up Study of Abused Children Reported From University Hospitals

MARIANNE K. MICHAEL, M.A., ACSW
Iowa City

The State of Iowa enacted legislation in 1965 which required health practitioners to report cases of suspected child abuse. The law states: "Every health practitioner who examines, attends, or treats a child and who believes or has reason to believe that the child has had physical injury inflicted on him as a result of abuse or willful neglect shall make a report as provided in the following section."

In essence, the law goes ahead to say these things: The written report is to be made to the county department of social services and to the county attorney. The report is to include: (1) The names and home addresses of the child and the parents, (2) the child's present whereabouts, if not his home address, (3) the child's age, (4) the nature and extent of the child's injuries including any evidence of previous injuries, and (5) any other information which the person making the report believes might be helpful in establishing the cause of the injuries. Provision is made for reports from "any other person" who believes that a child has had physical injury inflicted upon him as a result of abuse.

Following passage of the law, University Hospitals formulated a policy which provided for reporting of incidents of possible child abuse. Twenty-eight reports have been made by University Hospitals since October 1, 1965, when this directive came into being. These are cases of strongly suspected, although not unequivocally confirmed, child abuse. University Hospitals is not a central registry for the State of Iowa. This is simply a compilation of reports on those children seen at University Hospitals who are believed by our physicians to have been abused.

We know of no previous studies done on Iowa children exclusively, although the State Department of Social Services has been collecting statistics for 1967, 1968 and 1969 years on reported cases.

II. THE STUDY

Reason for the Study—University Hospitals has devised no regular or specific means of reviewing cases. Occasional informal reports have been provided by local counties on cases under review. In some instances the children have returned to University Hospitals for follow-up care. In an attempt to determine more completely what events followed the reports made from University Hospitals in that period, the social service department surveyed the counties to which those reports were made. Eighteen counties received the reports for the 28 children believed to have been abused. The time period covered is from October 1, 1965, to December 31, 1969. The reports by University Hospitals were prepared as follows: 3 in 1965 (a three-month period only); 5 in 1966; 2 in 1967; 7 in 1968 and 11 in 1969.

The social service department reviewed these cases out of a sense of on-going responsibility to help both child and family, not only at the time of the medical crisis, but in a broader sense. A child enters the medical setting for a limited time; in this instance, he enters with a medical problem resulting from trauma. The abuse report may bring him under the observation of the legal profession, but again for a limited period of time. The child's social situation may be changed as a result of the report, but whether it is the same or different he remains part of a social milieu in

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which the social worker is present. To more clearly define the responsibilities of the social worker with a child and his family, we reviewed the reported cases to learn more about the child and his family and how the social agency had worked with him.

We reviewed the cases by making two parallel surveys. From the child's hospital medical record, it was possible to extract some social information known at the time of the incident. Secondly, a questionnaire was sent to each county to which a report had been made, requesting additional information about the social situation of the child at the time of the incident and at present. Only the 28 children previously noted were surveyed. All counties completed the questionnaire to the extent they were able. In some cases information was incomplete because some facts were unknown.

For the State of Iowa as a whole, in 1967, 1968 and 1969, there were 51 counties which reported incidents of abuse involving 455 children.[1] The incidence of reported abuse is small. A much smaller portion is referred to University Hospitals. Hospitals do not report a large number of abused children. The 455 children reported in Iowa in 1967, 1968, 1969 were reported by the following sources.[2]

Private Medical Doctor	43
Hospital or Clinic	46
Police	31
Public Social Agency	124
Private Social Agency	5
School or Child Care Facility	92
P.H.N. or V.N.A.	14
Other	89
Unknown	12

We wanted to know if our own reporting from University Hospitals was of value in the care of the child. The local social service departments were asked how they used the University materials, what handicaps they worked under, and how the reporting could be improved. These questions were in addition to the social information requested on the child and his family.

We hoped to learn: (1) The characteristics of the child and his family. (2) His present social situation. (3) The way in which the report was handled locally. (4) The ways in which our hospital could improve its service to a local community faced with this problem. These were "who," "where" and "how" questions which concerned patients and families in their on-going activities. This was not an attempt to find psychological or "why" answers; we did not attempt to answer that question.

It will be important to review the status of these children at school age and again at latency or early adolescence to ascertain their social adjustment. Only when a child has managed well the developmental tasks which confront him can we feel he has successfully compensated for the earlier trauma.

III. THE CHILD AND THE PARENTS

University Hospitals sees only patients referred by a local physician. There are many abused children reported and treated locally who will not come to our hospital or to any hospital. The injuries to children seen at University Hospitals may be greater than those reported by local communities. This paper does not, however, deal with the medical aspects of any incident.

There were 17 boys and 11 girls in the study. The ages of the children ranged from 5 weeks to 13 years. The median was 8 months of age. Forty-three per cent of the children were 6 months of age or below when reported, 60 per cent were a year or less, and 85 per cent were 2 years of age or younger. All the children were white except one. The 28 children came from 18 different counties of the state. Slightly more than half were from counties with larger cities. In 16 of the 28 families (57%) the natural mother and father were both present in the home. In 42 per cent of the families the injured child was the first and only child in the family. In 84 per cent of the families there were 3 or fewer children.

Seven fathers of the studied children had medical or psychiatric problems which had been previously identified. Among these were "psych problems," in-patient status at mental health centers, 2 were alcoholics, 1 was retarded and 1 had a "bad back." Of the 18 fathers whose income was known to the county to which University Hospitals made its report, the income ranged from a low of $1,560 to a high of $9,500. The median income was $4,500.

Of the 28 cases reported, the natural mother was present in the home of 26 of them. Two

other mothers were adoptive mothers. Of the women whose ages were known, the age range was 18 years to 45 years with a median of 23 years. Known psychiatric or medical problems were reported by the counties in the case of 7 women. These included hysteria, hysterical personality, mental breakdown, schizophrenia, sociopath, psychiatric problems, obesity. Although these listed disabilities are not definitive, it provides an idea of the way the mother was viewed by her community. Twenty-five per cent of the mothers studied had an identifiable medical or psychiatric problem prior to the report of the abuse.

On the basis of our study, some recommendations have evolved which the State of Iowa might well consider.

(1) **Family Planning Clinics**—Every child should be a wanted child. Every family should have access to information which would help them plan their families as they want them. We found that 12 of our 28 study children were first and only children but obviously the family was not ready for them.

(2) **Central Registry**—There must be a provision in the law for a central agency to collect and analyze information regarding these children. We found that 8 of our study families (28.5%) had moved from the county to which University Hospitals had sent the report. (14% of our study families had moved from the state and no follow-up at all was going on with them.) A central registry could facilitate referrals at least within the state.

(3) **A Required Follow-Up Report to the Court**—The law requires a county to make an investigation at the time of the incident. Since additional reports of abuse have been made in 14 per cent of the reported children, it seems imperative that someone check the child's situation at a specific later date. It seems from the follow-up study that recommendations which were made within the first 96 hours of the report would not likely continue to be effective without revision. A required report 6 or 12 months later would give the court further evidence as to the quality of the on-going child care. This would also give the family a chance to modify its behavior and recover from any stigma the report had brought them.

(4) **Consultation Team**—A team should be available to help those counties whose professional staffs handle these cases rarely enough to have little expertise in managing them. Twenty-five per cent of the counties reported they were handicapped by no standardized procedure for doing the investigation. A consultation team could help a county "fill in" those gaps in knowledge.

(5) **Complete Reporting**—Our abused child study gave us reason to believe that a child is in a better position after he comes under the supervision of local agencies than he had previously been. A wait-and-see attitude after an injury does a disservice to the child since he may receive an additional injury if not reported. Encouragement should be given to private physicians to report since only 43 of the 455 reported cases in the State of Iowa from 1967, 1968, and 1969 were reported by private physicians.

(6) **Additional Studies**—More in-depth work should be done on other aspects of the problem. This could include exploring the use of foster homes for abused children, community mental health participation in the problem, the later social adjustment of the abused child, the incidence of family breakdown following the report, an examination of the characteristics of the 50 reporting counties as compared with the 49 counties which have reported no abused children in the past three years, or more study into the "why" of the child abuse.

(7) **Family Life Education**—A broadly based study of family life must become an integral part of the program of schools, churches, homes, clubs, clinics and day care centers. We must continue to study the nature of the family, how it is formed, how it maintains its equilibrium, how it relates to the structure of a society. We must do this at every community level if we are to keep our families intact. The welfare program has had a role in dividing families; other forces are responsible at other levels of society. The family must be protected and cultivated so it can, in turn, protect and nurture its children. To do less would be to fail the family.

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The Study of a Rubella Outbreak

JAMES W. GILES, M.D., and
IAN M. SMITH, M.D.
Iowa City

EVERY PRACTITIONER ON OCCASION poses certain questions to himself about his practice. "How many times has this problem appeared this month? Who was it that had a case just like this last year and what did I do about it? How am I doing with a certain form of treatment?" The answers would not only satisfy his curiosity, but might improve his diagnostic skills and methods of treatment in the future. Even if the practitioner keeps detailed records, there is no simple way within that system to answer these questions. Therefore, a simple system is needed for collection, storage and retrieval of data which would economize time and money and could be integrated into the present system of record keeping. The following is an explanation of one way to accomplish this.

This paper describes a situation which recently developed in Iowa City. By its serious implications, it necessitated a small but closely followed survey. By explaining how the study was set up, it is hoped that other practitioners not engaged in clinical research might take an active interest in their own practice to fully benefit from the information available in their own private records.

HISTORY

In February of 1971, a house officer of The University of Iowa Hospitals spent two weeks in the U.S. Army Reserve at Fort Leonard Wood, Missouri. During that time he recalled seeing many new recruits who presented to sick call with a skin rash. Some were associated with mild constitutional symptoms of fever and malaise and others had an upper respiratory infection. Some were completely asymptomatic. Some of these rashes were thought to be rubella on the basis of clinical presentation and others were simply called a viral exanthem. No serologic studies were done, nor were cultures obtained. Only symptomatic treatment was given. By the time this house officer finished his two weeks, he had developed malaise, low grade fever and a productive cough. He delayed returning to work for two days and was given a seven-day course of erythromycin. Ten days after returning to work, his colleagues noted he had a maculopapular rash involving his head, neck, chest and arms. Cultures were obtained for viruses and serologic studies were drawn. He was sent home for four more days and felt quite well during that time. He returned to work after the rash had completely cleared. Within 12 days from when the rash first appeared, one resident, one intern, two medical students and a ward secretary, all in daily contact with this house officer, developed a similar clinical picture. In addition, some of them developed painful arthralgias. By this time acute and convalescent rubella (hemagglutination inhibition) titers drawn from the house officer showed a rise from less than 1:8 to 1:128. In addition, five out of six of the contacts with a rash had no acute hemagglutination inhibition (HAI) antibodies. They all subsequently demonstrated high convalescent rubella HAI titers.

METHODS AND MATERIALS

Because of the serious consequences of a hospital based rubella epidemic, the hospital administration made an effort to warn everyone within the hospital of the possible dangers involved. The study presented here was set up by the Infectious Disease Division of the Department of Internal Medicine in an attempt to identify further cases of adult rubella associated with this outbreak. In addition, females susceptible to rubella within the childbearing

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years were identified and given advice concerning vaccination.[1] Data was gathered to study variables such as the length of the incubation period, various presenting signs and symptoms and previous history of "measles." A protocol was drawn up which called for a special history, limited physical examination and a sequence of blood tests. Because of the nature of the study, special efforts were made to contact the participants about the results of the blood tests so this was written into the protocol. A method for record keeping was devised utilizing a previously described marginal punch card system currently used for cataloguing all consultations seen by the Infectious Disease Division.[2] These cards are convenient, easy to handle and make retrieval extremely simple.

All the information was kept directly on the cards and more added as necessary. This eliminated errors in transcription. The data needed for identification and statistical analysis was also printed directly on the cards so that completing the card simply required filling in the blank spaces. (Figure 1) In the case of the rubella study, the following was thought to be the most important and therefore was printed on the cards: sex, age, place of work and residence, past history of rubella, possibility of pregnancy and estimated date of confinement (EDC), symptoms and onset of rash, examination and titers of the rubella HAI antibody. In order to make the data retrievable, the information was punched out on the margins of the cards in a prearranged code. (Figure 2) Most of the data could be expressed as *yes* or *no* answers. The *yes* was punched out, *no* was left intact. Numerical data was expressed in groups of four punches with possible combinations of numbers to represent 1 through 9. After the data had been coded on the margins, retrieval was easy. A thin steel rod could be passed through the holes in the margins when the cards were in a deck. By shaking the deck, the cards representing common data would fall out. (Figure 3) This was all there was to retrieval.

Because of the nature of the problem being studied, patients were not a problem to find. They actively sought out the study. There turned out to be three categories of patients seen.

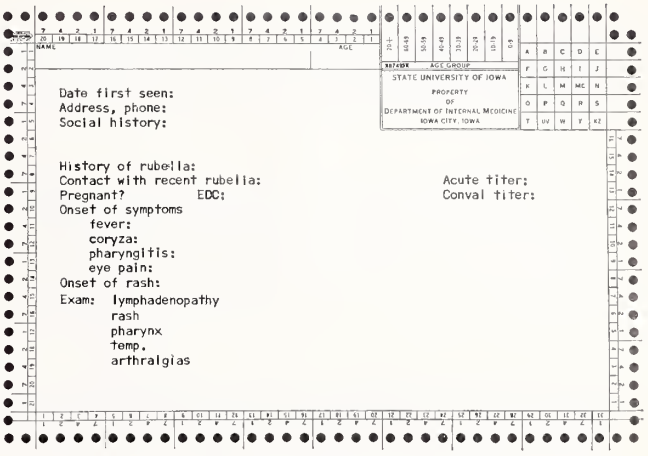


Figure 1. Sample of marginal punched card with requested data printed on it.

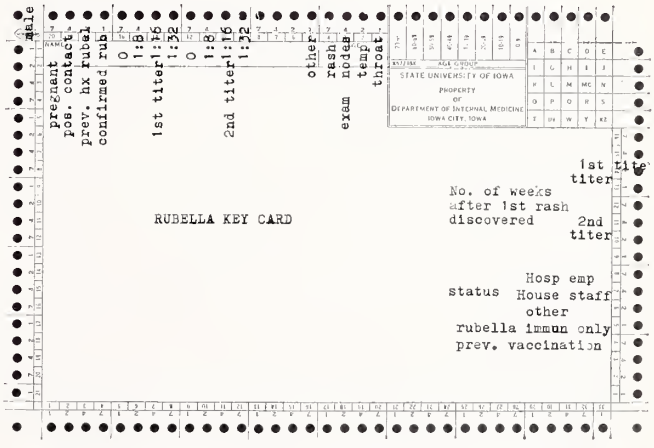


Figure 2. Key card for the coding of data along the margins of the punched cards.

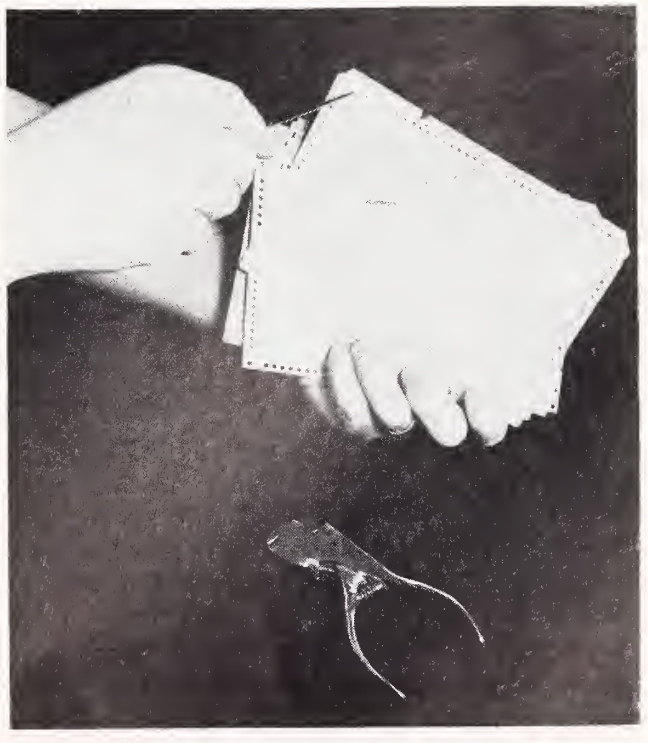


Figure 3. Retrieval system by sorting marginal-punched cards. The punch for notching these cards is shown.

1. Clinical rubella cases and those suspected of it.

2. Concerned pregnant females.

3. Those interested in their state of rubella immunity.

Fortunately for the study, although the last group was the largest, it was much smaller than might have been expected because of a similar study conducted two years previously in our hospital in the absence of an outbreak. By signs in the lobbies and routine communication channels, hospital employees and visitors were informed of the danger to pregnant females and what signs and symptoms to watch for if they developed a rubella infection. Instructions were also given as to the length of communicability. The rubella HAI test, now being run routinely by the State Hygienic Laboratory, was our means for ascertaining state of immunity.[1]

Data was put directly on the punch cards as the patients presented themselves for examination or asked for further information. The blood was drawn at that time and arrangements were made with each person to get the results of the test back to him. Several patients were contacted by phone to run down reports of various skin rashes and upper respiratory infections given us by friends and relatives. A visit was even made to a nearby dormitory to squelch a rumor of rampant rubella. None was found. The rubella HAI test was drawn on all participants in the study and repeated on those suspected of clinical rubella with low initial titers and pregnant females with low initial titers.

RESULTS

Data collection lasted for three months. Results of this study were available at any time without delay because of the simplicity of the data retrieval system. The most meaningful data did not result from a statistical analysis but from the identification of four pregnant women found to be susceptible to rubella. These women were warned to stay away from the hospital during the contagious period of the outbreak. They had repeat HAI titers drawn three to four weeks later and all were unchanged. They were also instructed in immediate precautions needed and advised to have rubella vaccination after delivery if they wanted future children. Because the outbreak was self-limited, the final data was of little statistical value. (Table I) One hundred and fourteen people were tested for possible rubella and rubella immunity. There were eight confirmed cases of adult rubella detected, seven of which were positively traced to the same source. Although viral isolation was attempted, none was accomplished. Seventeen pregnant hospital employees were tested and 13 were felt to be adequately protected. Out of the other 89 people, 12 (11.4%) were found not to have significant titers to the rubella HAI test. This figure is in close agreement with the 10-15 per cent of non-immune adults in the national average.[3]

TABLE I

RUBELLA SURVEY AT UNIVERSITY OF IOWA HOSPITALS MARCH-JUNE 1971

No. patients		114
No. tests		128
Non-pregnant, non-rubella		89
Titers < 1:8	11	
Titers > 1:8	78	
Pregnant patients		17
Titers < 1:8	3	
Titers 1:8	1	
Titers > 1:8	13	
Confirmed		8

DISCUSSION

In spite of the lack of earth shattering statistics from this study, several interesting facts are apparent. The system was kept extremely simple. Keeping these records grouped by disease not only made all the information easily retrievable, but in our hospital made follow-up better for the patient and easier for the physician. Most important, to the susceptible, pregnant females involved, the coordinated, centralized records system may have averted a tragedy.

Perhaps to the private practitioner knee-deep in a hospital and office practice, the thought of a prospective survey concerning diagnosis, epidemiology or treatment might seem to involve more work than it is worth. However, utilizing a system similar to that described here, very simple methods can handle that task quite adequately with a minimum of extra time and money. It can, for all practical purposes, be integrated directly into existent record keeping. It would seem that to the con-

cerned physician, a method such as this might make his own practice an academic gold mine.

ACKNOWLEDGMENT

I wish to thank the virology section of the State Hygienic Laboratory for their cooperation in running the rubella HAI tests on a semi-emergency basis in large volumes. The rapid relay of results from them aided the efficiency of the study. Special thanks to Mr. Jerry Hudson, then senior virologist, and Mr. Yau Wai Wong, Assistant Director of the State Hygienic Laboratories.

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A HISTORICAL VIGNETTE—THE GENERAL'S PHYSICIANS

Great military leaders are naturally entitled to the best medical care available, and Black Hawk (Makatameshekikek), the Sauk war leader, was no exception. It appears he reached his threescore and ten plus three with little sickness or debility. He was, however, troubled by two chronic thorns in his side. On the one hand was Keokuk, his political adversary, and on the other was the relentless expansive pressure from white settlers and pioneers. The record is blank on how much heed Black Hawk gave to the amount of cholesterol and triglyceride in his diet. We do know he was a great walker and hiker, but there is no evidence he availed himself of the benefits of regular jogging. He smoked, but used no alcohol.

The great American medical profession got into the act shortly before Black Hawk died. In September 1838 Black Hawk (age 73) started on foot to go from Iowaville, Iowa, to Fort Armstrong, Rock Island, Illinois, 95 miles by crow flight. After a few miles he became ill with "bilious fever." He returned home realizing his illness would require the services of a professional. Perhaps he had not paid his last medical bill, and therefore bypassed his tribal medicine man. Regardless of the reason, Black Hawk sent word to a nearby army post, asking for a house call by the post surgeon. Haste was requested. However, before the message reached the military, Black Hawk died. This was September or October 1838. But this was only the beginning of the old warrior's medical career. The next 15 years would see no less than four medical and dental consultants called in.

The first consultant, a Dr. Elbert, arrived early in the spring of 1839. His purpose was to exhume Black Hawk's remains and spirit them away, so to speak, for anatomical purposes. The alertness of Black Hawk's family and aid by a white trader caused Dr. Elbert's night house call to fail.

The next consultant turned his attention to Black Hawk a few months later. This was a Dr. Turner, who was living in nearby Lexington, Iowa, in Van Buren County. (This town is no longer in existence.) The good doctor succeeded in relieving the grave of its contents. After some preliminary work, followed by several hydrotherapy sessions in a large iron kettle of boiling water, the general's bones were considered satisfactory for use.

Next Black Hawk was attended to by a dentist, Dr. Hallowbush. He was probably from Quincy, Illinois. His task was to put the finishing touches on the bones and reassemble the skeleton. Following this the warrior's skeleton was to tour the East. A small admission charge to view the skeleton was expected to provide a substantial income.

The next development occurred in January 1840, when the patient's bones appeared in Burlington, Iowa, in the office of the territorial governor, Mr. Robert Lucas. The bones were in fine condition, but not assembled. They were in a nicely made wooden box, the likes of which would be an asset to any freshman medical student. Nothing more is known of the two previous consultants, and one can only assume they had some disagreement over the fee for services rendered. Mrs. Black Hawk and her bereaved family were called, and after proper counsel it was decided the bones of their beloved husband and father should remain with the Governor, since "he had kept them in such fine condition." The patient's family was no doubt also impressed with the craftsmanship of the box and its contents.

A shift in the political world gave Governor Chambers control over the Iowa Territory. He promptly found himself guardian of a certain black box. The new Governor became engrossed in the affairs of state and quickly found he needed more office storage space. To help relieve this situation, the box of bones was given for safekeeping to Dr. Enos Lowe of Burlington, Iowa.

Dr. Lowe was none other than the first president of the Iowa State Medical Society. It appears interest in the study of anatomy was at low ebb, and the box of bones was soon transferred with pomp and ceremony to the Iowa Geological and Historical Society. This Society placed the remains in its office in Burlington, Iowa, where they remained until January 15, 1853. During the night a fire broke out and consumed the entire building and along with it the bones of the fiery old general. What could be a more fitting way to go?—J. F. Foss, M.D., *IMS Historical Committee.*

Editorials

M. E. ALBERTS, M.D., Scientific Editor

CHILD ABUSE

Child abuse is not unique to today's society. For many centuries people have considered physical punishment to a child necessary to maintain discipline in the home as well as in school. The schoolmaster of old was generally pictured with a switch in hand, for to spare the rod was to spoil the child. The family was predominantly matriarchal in its functions, and children were taught through lessons in their *readers* to fear God and respect their parents. In some cultures children were tortured and badly beaten—sometimes killed—to drive away evil spirits or to appease the gods.

The plight of the child in mid-eighteenth century England is recorded in such detail that the facts are scarcely believable. Children were cast aside; infants' bodies could be found on the dung heaps in the streets of London; child labor was exploited, and child slavery was accepted. The tales of Charles Dickens' *Oliver Twist* brings to our minds the "Fagans" who profited from child abuse. On and on the problems of the children continue, even to our present day. Child abuse and the battered child syndrome remain, but under a different cloud. More than 10,000 cases of the battered child syndromes are reported each year in the United States. The forms of abuse range from simple bruises and cuts to cigarette burns, strangulation and homicidal starvation.

It is appropriate that this issue of the JOURNAL contains several discussions of this great problem. The American Academy of Pediatrics Newsletter Supplement of February 1, 1972 presents a statement from its Committee on Infant and Pre-School Child relating to the maltreatment of children. It reaffirms that (1) physicians should be required to report suspected instances of child abuse immediately to a responsible agency; (2) the responsible agency must have resources to take immediate action; (3) reported cases should be evaluated promptly and appropriate services be provided the child and family; (4) the child should be protected by the agency; (5) a central registry should be maintained of all cases of child abuse, and (6) the physician or hospital must be granted immunity from lawsuits.

Because the American Academy of Pediatrics anticipates an annual incidence of 260 suspected cases of child abuse per million population in urban areas, further recommendations are proposed. These propositions relate to the prediction of situations of parental abuse, crisis management centers to assist families in relief from acutely overwhelming situations, the establishment of child abuse diagnostic and/or treatment centers, the establishment of day-care centers as a part of a comprehensive management and rehabilitation program, and recruitment and utilization of lay assistance to give troubled families support and counsel (a sort of "Mothers Anonymous" program).

Physicians are urged to be aware of child abuse, and to alert responsible agencies to bring about a cessation of this prevalent maltreatment of children. Further, we must support all avenues of endeavor in the management and control of this problem.—M.E.A.

SEE SCIENTIFIC SECTION FOR DISCUSSION OF CHILD ABUSE

IS MEDICAL CARE A RIGHT?

A very provocative essay* appears in the December 2, 1971 issue of THE NEW ENGLAND JOURNAL OF MEDICINE. Robert M. Sade, M.D., of the Children's Hospital Medical Center, Boston, writes a refutation to the proposition that medical care is a right. I urge all physicians to read this essay—not necessarily with the thought of aligning with the propositions presented, but to gain some additional insight to the situations which are being proposed by governmental planners.

Dr. Sade points to the fact that man's primary right—the right to his own life—includes the right to select and pursue his own values. Thus, the choice of the conditions under which a physician's services are rendered belongs to the physician as a consequence of his right to support his own life. The contention is made that when man is denied the right to choose his own goals and is prevented from setting his own course in the achievement of those goals, slavery results. Man then is no longer free in a free society.

When politics and medicine are mixed a conflict in rights results. Dr. Sade contends that medical care is neither a right nor a privilege: it is a service provided by doctors and others to people who wish to purchase it. If the right of health care belongs exclusively to the patient, or an agent for him, it would appear that the patient starts out owning the services of the doctor without earning them or receiving them as a gift from the doctor. Consequently the doctor becomes more and more controlled by forces outside his own judgment.

Analysis of proposed legislation for health care emphasizes in many ways controls by governmental agencies—controls formed in many instances by individuals who could not in the least possible way understand their actions. Examples need not be cited because we are all aware of many instances of "political expediency" leading to unrealistic situations which often must be covered by more political expediency to avoid embarrassment at a top level.

Read Dr. Sade's essay. It is very interesting. Formulate your own conclusions.—M.E.A.

*Sade, R. M.: Medical care as a right: a refutation, N. ENG. J. OF MED., 285:1288-1292, Dec. 1971.

WORDS

Have you ever been provoked by a speaker who uses a term which seems inappropriate, or repeatedly uses a word which is redundant? One such word is *indeed*. It seems this is the *vogue* word to use to support a contention that needs no support; or still more inappropriately to emphasize a statement that is so weak it should not have emerged in the first place.

Webster defines *indeed* as follows: "in reality; in truth; in fact; to be sure." Now, does a speaker have to say to his audience he is speaking the truth? It is assumed he is, or he should not have been asked to appear.

Another example of word usage open to question is *regimen* versus *regime*. I suppose either might be construed as correct in referring to a way of dealing with the treatment of a medical problem. Technically, in the medical sense, *regimen* refers to a "systematic course of diet, etc." while *regime* refers to a mode of rule—more of a governmental or social system. (However, with the rapid inroads by the government into medicine perhaps the usage of this word is becoming more correct.) Dorland does not list *regime; regimen* is preferred.

I have unloaded upon you this bit of personal concern over semantics for no other reason than to editorialize. You may have pet peeves too. Care to ventilate?—M.E.A.

THE GROWTH OF CRIME ACROSS THE COUNTRY

There is a serious malady afflicting this nation. It is especially prevalent in large cities but it occurs also in small communities and even in isolated homes in the country. This malady is crime, crimes of violence which include homicide, rape, robbery and burglary. Most common are robbery and burglary and both pose the threat of violence. Studies indicate 60 per cent of all robberies are committed by an armed assailant and as one reads press reports of burglary the offender is usually armed. Surprisingly, burglary is the most widespread of all serious crime; over two million burglaries were reported in this country in 1970.

The Federal Law Enforcement Assistance Administration disseminates information on crime in its efforts to combat this serious problem. It advises that the highest proportion of crime victims live in cities. Burglary is about three times as prevalent on a per capita basis in cities over 250,000 as in towns of less than 10,000. Robbery is even more prevalent in cities. In 1970 the robbery rate was 595 per 100,000 population in cities over 250,000. The rate in metropolitan suburbs was 59 or one-tenth of the preceding figure. For small cities under 10,000, the rate was 24 per 100,000 population.

A most distressing aspect of the data on major crime is that almost half of those arrested are under 18. Juvenile crime appears to be increasing rapidly. Juvenile arrests for violent crimes increased three times faster than adult arrests between 1960 and 1970, according to the FBI. Drug arrests for juveniles under 18 increased over 3000 per cent in the decade.

The incidence of repetitive crime is discouraging, the FBI also reports. Burglars had a recidivist rate of 76 per cent; persons committing robbery had a 57 per cent recidivism. A study in Philadelphia indicates fewer than 10 per cent of the delinquent population was responsible for 60 to 70 per cent of the serious offenses. The FBI reports that of the under-20 offenders released from custody in 1965, 74 per cent were re-arrested by the end of 1968. Persons under 21 were responsible for 57 per cent of the total robbery arrests and 70 per cent of the total burglary arrests.

Certain juveniles and young adults constitute a "high risk" group. There is little doubt that addiction occasions a great amount of crime. A 1967 study in New York City revealed 41 per cent of those arrested for burglary were admitted users. Drugs and alcohol reportedly provided the stimulus for 71 per cent of the "spur of the moment" robberies.

The able-bodied young man who is unemployed and unoccupied is considered a prospect for serious crime. If he already has a criminal record, he is almost certain to be a recidivist. Just as the unemployed young adult is a probable offender, the truant child and the drop-out are potential delinquents. The importance of a youth's educational experience in the avoidance of delinquency and a criminal career is well recognized. Special efforts should be made to reach these groups to supply learning and work experiences to reduce the incidence of delinquency and the probability of criminal behavior.

Physicians, particularly family physicians and pediatricians, can make significant contributions to crime prevention and offender rehabilitation in their communities. Counseling with youth and parents, addressing PTA groups and other organizations, encouraging businessmen to provide work opportunities, cooperating with law enforcement agencies and the courts, these are some ways in which physicians can help reduce delinquency, violence and crime.

There is considerable controversy over the relative merits of punitive or rehabilitative measures in the management of offenders, particularly youth. The basic philosophy of the judge is usually the determining factor. However, it is generally accepted that rehabilitative measures should play an important role. The delinquent needs a friend and confidant.—DENNIS H. KELLY, SR., M.D.

Pathology Capsules

by EARL F. ROSE, M.D., LL.B.

ALCOHOL: ABSORPTION, METABOLISM AND SIGNIFICANCE

And Noah began to be an husbandman, and he planted a vineyard: and he drank of the wine and was drunken; GENESIS 9:20-21

Ethanol or ethyl alcohol is the alcohol found in beverages, and man has devoted an immeasurable amount of ingenuity, talent, and time to its production, consumption and discussion. Alcohol is of particular interest to physicians who, although on occasion the spiritual descendants of Noah, are professionally required to care for the injured who are "under the influence of alcohol," prescribe drugs that contain or interact with alcohol, or express an expert opinion regarding the absorption, metabolism and effect of alcohol.

Alcohol is implicated in a host of organic diseases and medical-social-psychiatric conditions. The lowering of resistance to infection after alcohol ingestion, even in the social drinker, is attributed to the depressive effect alcohol has on the rate of leukocyte mobilization.

The significance of alcohol in injuries and accidents is attested to by reports that more than 20 per cent of all hospital admissions for home accidents are associated with intoxication; that a blood alcohol level of 0.10% w/v (100 mg.%) increases the risk of a traffic accident six to tenfold; that about one half of the adult population at least occasionally use the highways after drinking; that drinking is a factor in as many as half the fatal motor vehicle accidents; and that the use of alcohol by drivers and pedestrians leads to some 25,000 deaths and a total of at least 800,000 accidents in the United States each year. The presumptive level at which none of us is fit to drive a motor vehicle is 0.10%, but every person has lost to some degree his normal judgment, reflexes, vision, concentration and ability to respond to an emergency situation well before this level is reached. Symptoms of intoxication are more pronounced when the blood alcohol concentration is increasing than when it is falling; however, driving impairment persists after alcohol is undetectable in the blood.

There are no drugs, including coffee, that can reverse the effect of alcohol—a drug itself—on the brain. Fructose infusion accelerates alcohol metabolism by unknown mechanisms. Alcohol does interact with other depressant drugs to potentiate the toxicity in certain combinations and also to alter therapeutic efficacy. Drugs susceptible to interaction with alcohol include not only the barbiturates but tranquilizers and hypnotics, hypoglycemic agents, and antibacterial, anticoagulants, and antihypertensive agents.

Because of its solubility and low molecular weight, 80 to 90 per cent of ingested ethyl alcohol is absorbed directly through the mucous membranes of the intestinal tract by simple diffusion within about 30-45 minutes. Little passes the duodenum following ingestion, and there is a direct linear relationship between concentration and speed of absorption. The concentration of alcohol in the arterial blood is significantly above the venous blood for about half an hour after ingestion, and is in equilibrium with the brain. A valid approximation of blood alcohol level reached in one hour is based on the alcoholic content of the beverage consumed. For the average 160 pound individual in good health tested in an hour after drinking, a minimum of:

2 ounces of 45% (90 proof) whiskey = 0.05% alcohol in the blood.
4 ounces of 45% (90 proof) whiskey = 0.10% alcohol in the blood.
two 12 ounce bottles of 4% beer = 0.05% alcohol in the blood.

"Backward extrapolation" or deductions drawn from the results of a blood alcohol test some hours after ingestion of alcohol are quite valid, and only within a minimum time interval of 30 minutes is there a significant possibility of error. But there are individual variations in the rate of metabolism, and thus disappearance, of alcohol from the body.

The clearance rate for alcohol may be over

(Please turn to page 252)

This series of review articles is provided by the Iowa Association of Pathologists. This discussion has been prepared by Earl F. Rose, M.D. Dr. Rose is an associate professor in the Department of Pathology at The U. of I. College of Medicine.

Educationally Speaking

by RICHARD M. CAPLAN, M.D.

"FLOUR CANNISTER OR OUTDOOR TOILET?"

In his current best-selling analysis of the social and psychological implications of our technological revolution, the author of FUTURE SHOCK wrote, "In all the talk about the need for continuing education, in all the popular discussions of retraining, there is an assumption that man's potentials for re-education are unlimited." He then asks if that assumption is correct, or if there might be actual physical or physiological limits to our ability to form and retain new mental images, abstractions and skills.

I think we know too little of mental functioning to be certain. We may reason that each brain is like a container of finite size that may reach its capacity, after which it cannot hold anything more. (Think of flour in a cannister.) Or maybe the capacity, though finite, far outstrips any reasonable likelihood of filling it, especially if there is a continuous decay and compaction of what is stored in it. (Think of how few outdoor toilets you have known which ever overflowed.) Or think of the possibility of effective erasure, so that new material can always be added at the expense of old material no longer needed. (Think of the modern magnetic recording tape and its ability to store, yet receive new impressions *ad lib* and *ad infinitum*.)

But to focus on acquisition and retention of new facts and skills as the sole justification for continuing medical education would be to overlook some other signal benefits. Do we not need a bit of inspiration now and then, just as our metabolic activities need tiny amounts of vitamins? Don't we need to make contact with other minds whose ideas can illuminate our path, or at least provide comforting companionship in the dark? Don't we require invigoration, an enhanced motivation, a recharged battery to grapple freshly with both routine and special challenges? Don't we need continuing education to be a sort of plastic surgeon to reshape our noses when they have been worn down at the grindstone? I answer "yes" to all these questions. And even if there is a finite limit to our brain-power (and, of course, there is, else it would be infinite—a conclusion vitiated for me by man's mortality), I will give no energy to worrying that man's potential for retraining will ever run out. Do you agree?

Dr. Caplan is Assistant Dean, Continuing Medical Education, at The University of Iowa College of Medicine.

Continuing Education Courses & Conferences

Please call or write Office of Continuing Medical Education, College of Medicine, for further information on these programs. Telephone 319-353-5763.

1972

May 8-11	Conference-Workshop on Ultrasonography in Ophthalmology
May 8-12	Intensive Course in Pediatric Nutrition
May 11-13	Iowa Eye Association Meeting
May 18	*Clinical Problems in Neurology
May 29-June 2	Management of Maxillofacial Injuries
June 5-7	American College of Physicians Course
June 5-8	*Intensive Coronary Care Management Course
June 16-17	Cancer Teaching Days
June 26-30	Summer Workshop on Alcoholism
July 30-Aug. 3	* Intensive Coronary Care and Management Course

Unless otherwise specified all courses and conferences are held at The U. of I. College of Medicine, Iowa City.

* Enrollment limited. Advance registration necessary.

"The history of science, and in particular the history of medicine... is... the history of man's reactions to the truth, the history of the gradual revelation of truth, the history of the gradual liberation of our minds from darkness and prejudice."

—George Sarton, from "The History of Medicine Versus the History of Art"

Should nongovernment scientists and physicians play a role in drug regulation?

Opinion

Results of a questionnaire to 7000 physicians:

82.8%
Physicians should play a role

78.3%
Independent scientists should play a role

69.8%
Medical academicians should play a role

Opinion & Dialogue

Dialog

Should nongovernment scientists and physicians play a role in drug regulation?

Doctor of Medicine

Herbert L. Ley, Jr., M.D., M.P.H., Formerly Commissioner, F.D.A. (1968-1969) Currently Medical Consultant

In order for drug regulation to be effective, participation in the regulatory process from nongovernment physicians and scientists must be encouraged. Without such involvement, there will continue to be a high degree of controversy surrounding any regulations promulgated by the Food and Drug Administration.

There are two areas in which participation and communication by nongovernment physicians and scientists could significantly improve the process of regulation. First, scientists and physicians throughout the country could become involved in consulting relationships with the Food and Drug Administration in important scientific areas while regulatory policies are being evolved. If nongovernment professionals could bring their expertise and experience to bear early in the decision-making process, they would have less reason to criticize the final outcome.

Secondly, practicing physicians, academic physicians, and academic-based scientists could make it their business to comment on proposed regulations appearing in the Federal Register. Ideally, a system could be instituted whereby medical, scientific and technical people could see the Federal Register regularly, and provide the Food and Drug Administration with a body of opinion that has so far gone unheard. The FDA is caught among pressures from industry, Congress, the Presidential Administration and consumers. It should also feel pressures from practicing physicians and scientists.

In order to become more involved in these stages of the drug regulatory process, nongovernment physicians and scientists should begin to exercise their influence through their respective professional organizations,



state and national medical societies, and specialty groups. Logically, a letter from these organizations representing a collective opinion has far greater weight in the regulatory process than individual letters. If the Food and Drug Administration receives opinions from these organizations early, before a regulation gets into the Federal Register, they are in a good position to respond with further study and review. Without such dissenting opinions, there is very little incentive to make changes in proposed regulations.

One instance in which practitioners did influence drug regulatory affairs in this way is the recent controversy that arose over the legitimacy of drug combinations. The strong opinion of practitioners on the value of such medication in clinical practice played a very prominent role in making the Food and Drug Administration modify its rather restrictive policy.

Another way in which practitioners can effectively influence drug regulations is by working with drug manufacturers conducting clinical trials of chemotherapeutic agents. When a drug is rated other than effective it may only mean that there is a lack of controlled clinical evidence as to efficacy. Thus, physicians might offer to conduct clinical studies that could help keep a truly effective drug in the marketplace. The treatment of diseases such as diabetes and angina are areas where the practitioner can aid in clinical studies because patients suffering from these diseases are rarely found in the conventional hospital setting.

By working with ethically and scientifically sound study designs in his everyday practice, the practitioner could begin to play an important part in determining official ratings on drug efficacy.

Nongovernment physicians and scientists and the FDA should also improve their lines of communication to the public. The medical community must develop a voice every bit as loud as that of the consumerists, the press, and others who sometimes criticize without complete information. If not, much of wha
the medical communit
and federal regulators d
will often be represented i
simplistic and somewha
misleading terms.

One illustration of th
misuse of the media in th
regard is the recall of ant
coagulant drugs severa
years ago. This FDA actio
was given publicity by th
press and television tha
went far beyond its prob
able importance. The resu
was a very uncomfortabl
situation for the pract
tioner who had patient
taking these medication
Since the practitioner an
pharmacist had not bee
informed of the action b
the time it was publicize
in most states they wer
deluged with calls fro
worried patients.

The practitioner can a
tempt to solve these prob
lems of inadequate commu
nication in several way
One would be the creatio
of a communications lin
in state pharmacy societie
When drug regulation new
is to be announced, the so
ciety could immediatel
distribute a message to e
ery pharmacist in the stat
The pharmacist, in turn
could notify the physician
in his local community s
that he and the physicia
could be prepared to an
swer inquiries from pa
tients. Another approac
would be to use profes
sional publications th
practitioner receives.

All of this leads back t
my opening contention:
drug regulation is to be e
fective, timely, and relate
to the realities of clinica
practice, a better method
communication and feed
back must be developed be
tween the nongovernmen
tal medical and scientif
communities and the regu
latory agency.

ue

Maker of Medicine



Henry W. Gadsden, Chairman & Chief Executive Officer, Merck & Co., Inc.

In my opinion, it is the esponsibility of all physi-ians and medical scientists o take whatever steps they hink are desirable in a law-nd regulation-making rocess that can have far-eaching impact on the ractice of medicine. Yet nany events in the recent ast indicate that this is ot happening. For exam-le, it is apparent from rug efficacy studies that he NAS/NRC panels gave ittle consideration to the vidence that could have een provided by practic-ng physicians.

There are several current levelopments that should ncrease the concern of racticing physicians about rug regulatory affairs. One s the proliferation of mal-ractice claims and litiga-ion. Another is the effort y government to establish he relative efficacy of rugs. This implies that if a physician prescribes a rug other than the "estab-ished" drug of choice, he may be accused of practic-ng something less than first-class medicine. It would come perilously close to federal direction of how medicine should be practiced.

In order to minimize this kind of arbitrary federal action, a way must be found to give practitioners both voice and representation in government affairs. Government must be caused to recognize the essentiality of seeking their views. One of the difficulties today, however, is that there is no way for concerned practitioners to participate in the early stages of decision-making processes. They usually don't hear about regulations until a proposal appears in the Federal Register, if then. By that time a lot of concrete has been poured, and a lot of boots are in the concrete.

Physicians in private practice, and particularly clinicians, should press for representation on the advisory committees of the Food and Drug Administration, joining with academic and teaching hospital physicians and scientists who are already serving. Though practitioners may not have access to all available information, the value of their clinical experience should be recognized. Clinicians, for example, rightly remind us that difficulty in *proving* precise effects does not necessarily mean a drug is ineffective.

Unless practitioners are more involved in drug regulations, it will be increasingly difficult for the pharmaceutical industry and scientists elsewhere to make optimal progress in drug development. The benefit/risk ratio must be re-emphasized, and as part of this it must be acknowledged that benefit can come from the judgments of medical science as a whole. Even this concept, unfortunately, is not always accepted in drug regulatory processes. For example, if current medical opinion holds that an excess of total lipids and cholesterol in the blood is probably predisposing to atherosclerosis, and if a drug is discovered which reduces total lipids and cholesterol, the drug ought to be accepted *prima facie* as a contribution to medical science . . . until someone disproves the theory. The sponsor should not have to prove the theory as well as to develop and test the drug.

I feel a major new effort must also be made to erase the feeling of mistrust of medicine and of medicines that seems to be growing in the public consciousness. Triggered primarily by strident announcements in Washington, people are reading and hearing confidence-shaking things almost continuously. Although challenge and awareness are essential to medical advancement, our long-term goal is constructively to build, not destroy. This means strengthening patient-physician relationships based on mutual confidence and trust. And in matters of health policy, it means working toward participatory rather than adversary proceedings—where everyone with an interest and a capacity to contribute has an opportunity to be heard . . . and, if that opportunity is not spontaneously afforded him, he may seek it.

Opinion & Dialogue

What is your opinion, doctor?
We would welcome your comments.

P·M·A

The Pharmaceutical Manufacturers Association
1155 Fifteenth Street, N.W., Washington, D.C. 20005

Medical Assistants

by TENORA MEYER

Ephebiatrics

Most physicians see patients between ages 13 and 18. In this age group growth and development are so rapid that specialized attention must be given to the medical and emotional problems which present themselves. These young people are too old for the pediatrician and too young for the internist; thus, there is a *new* subspecialty called Ephebiatrics, which is the study of the adolescent and young adult.

In 1965, the World Health Organization sanctioned and made recommendations on the medical care of the young adult. In 1968, the Society of Adolescent Medicine was formed with over 200 charter members. This Society had as its goals: (1) to improve the quality of medical care for the adolescents; (2) to encourage the investigation of normal growth and development during adolescence and of those diseases and conditions that affect adolescents; (3) to stimulate the creation of medical services for adolescents; (4) to increase communication between physicians and other professionals who care for adolescents, and (5) to foster and improve the quality of training of those individuals providing medical care to adolescents.

We, as medical assistants, can help put this adolescent patient at ease. Much can be gained by a friendly smile and approach. We can ask about their interests and what they like to be called. You no doubt have reading material in your waiting room for the young child and adults. Some literature should be provided for adolescents. They will search your waiting and examining rooms for a means of association with their particular phase of life. Finding only childish and adult periodicals they may be unable to identify with the surroundings. This may contribute to a feeling of uneasiness during the history taking and examination.

Some common adolescent ailments include: obesity, usually exogenous; skin disorders, acne being most common; venereal infections; gastrointestinal ailments; teenage pregnancy (unmarried); drug abuse and addiction. There are also psychological problems such as the identity crisis, school performance, acceptance by peer groups, etc. which should be recognized.

The medical assistant can contribute much to the feeling of well being of these young patients.

PLAN TO ATTEND THE MIDWEST CONVENTION OF MEDICAL ASSISTANTS
ROOSEVELT MOTOR HOTEL
CEDAR RAPIDS, IOWA
MAY 19, 20, 21, 1972

Educational Pursuits

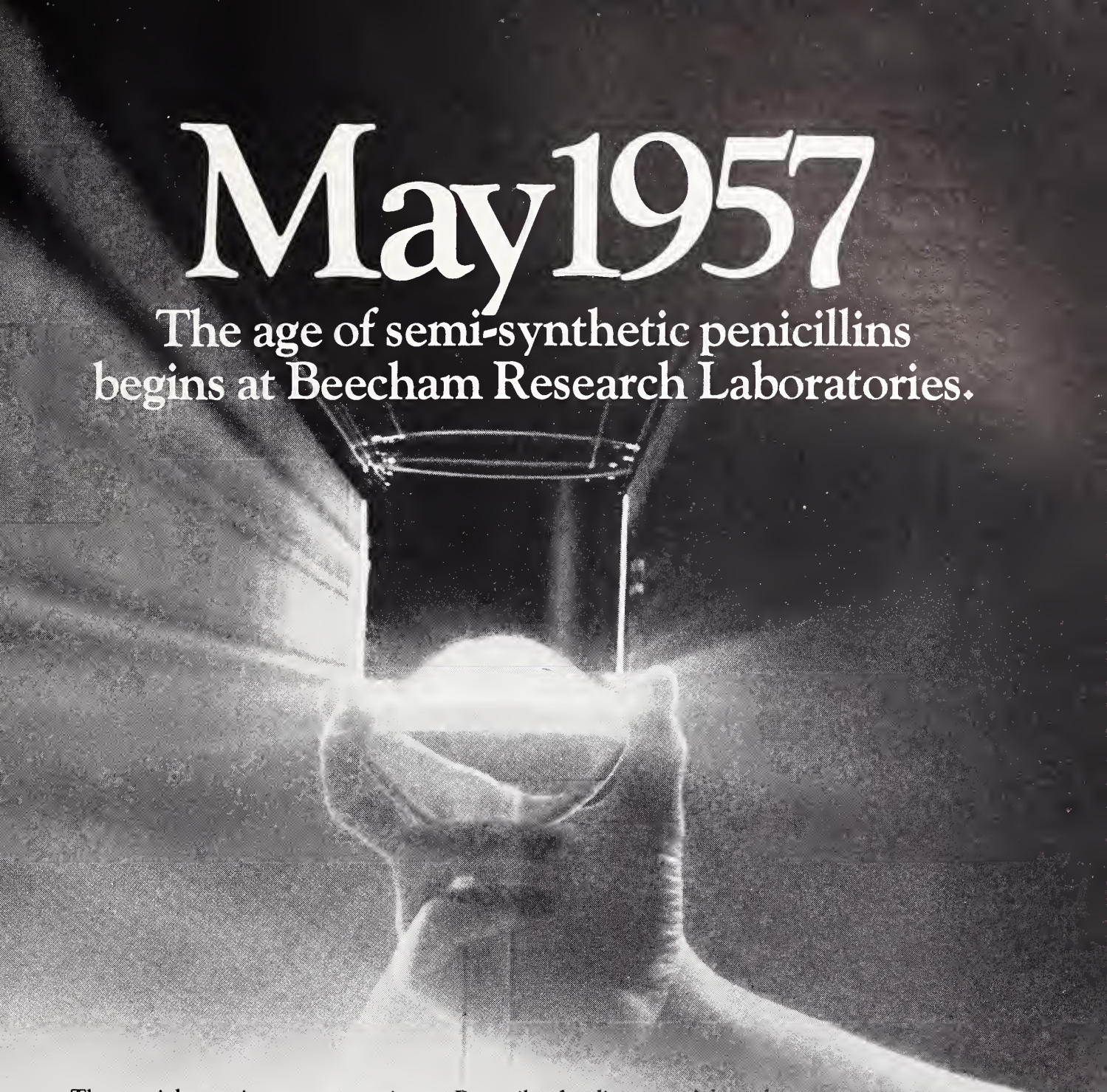
The Waterloo Chapter of Medical Assistants reports clinical courses at Hawkeye Institute in operation since mid-January. Some CMA's from Black Hawk County are anticipated next summer.

The Des Moines Chapter of Medical Assistants reports a urinalysis (and possibly hematology) class is being set up through the Area Community College. The Chapter also plans to start evening discussion groups once a month to include tours of different offices.

• • •

When asked the qualities they liked most about their medical assistants, a cross-section of physicians listed the following: *Punctuality, dependability, honesty and efficiency*—"the things a boss has a right to expect." Most doctors felt a medical assistant needs to be "something more" than just efficient or dependable. "Maturity is her most important asset." Another listed *cheerfulness* and a *positive attitude*, stating "it doesn't help a sick person to see you looking gloomy or worried; it makes him think you might be worried about him." The dislikes included failure to follow directions, constant requests for time off, and too much office time spent on personal affairs. Sometimes the physician and his assistant don't talk things over because they're too busy. Time should be set aside for this purpose. If they don't confer once in a while, the professional relationship, like any other, is bound to break down.

This page is prepared for and by the Iowa Chapter, American Association of Medical Assistants. Material is compiled by Mrs. Tenora Meyer.



May 1957

The age of semi-synthetic penicillins begins at Beecham Research Laboratories.

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PATHOLOGY CAPSULES

(Continued from page 245)

0.04%/hour in the recently drinking alcoholic without clinical liver disease (jaundice), and as slow as 0.015%/hour in the occasional drinker. If the value of 0.15%/hour is used to establish the metabolic clearance rate, every advantage is given the individual alleged to have been "under the influence." An example of backward extrapolation is that of a healthy 160 pound individual from whom venous blood is drawn two hours following arrest. If the blood alcohol level is 0.09%, and calculating the minimum clearance rate at 0.015%/hour, this would have required the ingestion of a minimum of over four 12 ounce bottles of 4% beer, or 4 ounces of 90 proof whiskey.

The use of urine alcohol to determine the concentration of blood alcohol is not reliable. On the other hand, the alcohol concentration of the alveolar air is an accurate reflection of the concentration of alcohol in the blood. Blood alcohol levels at autopsy are valid up to two days. The conditions of collecting the specimen, the precautions in preserving the specimen and the methods of analysis are significant in blood alcohol level findings.

RADIOLOGY WINDOW CASE NO. 2

The correct diagnosis for the case illustrated on page 226 is (3) Carcinoma of the lung.

Figure 3: Laminography Rt. hilum reveals a well circumscribed mass extending through the Rt. middle lobe (the projection is Rt. posterior oblique). Previous chest examinations were normal.

Thoracotomy: Adenocarcinoma of the right middle lobe.

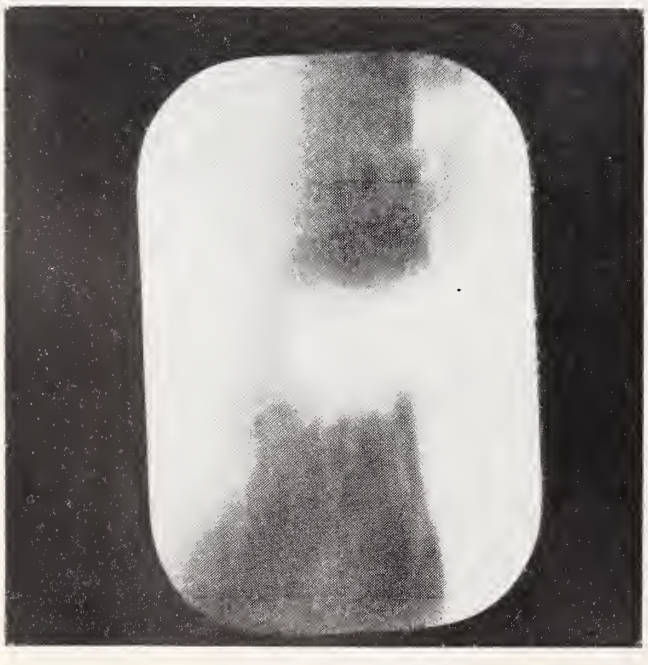


Figure 3.

Pre-Sate®
(chlorphentermine HCl)

CAUTION: Federal law prohibits dispensing without prescription.

Indications: Pre-Sate (chlorphentermine hydrochloride) is indicated in exogenous obesity, as a short term (*i.e.*, several weeks) adjunct in a regimen of weight reduction based upon caloric restriction.

Contraindications: Glaucoma, hyperthyroidism, pheochromocytoma, hypersensitivity to sympathomimetic amines, and agitated states. Pre-Sate (chlorphentermine hydrochloride) is also contraindicated in patients with a history of drug abuse or symptomatic cardiovascular disease of the following types: advanced arteriosclerosis, severe coronary artery disease, moderate to severe hypertension, or cardiac conduction abnormalities with danger of arrhythmias. The drug is also contraindicated during or within 14 days following administration of monamine oxidase inhibitors, since hypertensive crises may result.

Warnings: When weight loss is unsatisfactory the recommended dosage should not be increased in an attempt to obtain increased anorexigenic effect; discontinue the drug. Tolerance to the anorectic effect may develop. Drowsiness or stimulation may occur and may impair ability to engage in potentially hazardous activities such as operating machinery, driving a motor vehicle, or performing tasks requiring precision work or critical judgment. Therefore, such patients should be cautioned accordingly. Caution must be exercised if Pre-Sate (chlorphentermine hydrochloride) is used concomitantly with other central nervous system stimulants. There have been reports of pulmonary hypertension in patients who received related drugs.

Drug Dependence: Drugs of this type have a potential for abuse. Patients have been known to increase the intake of drugs of this type to many times the dosages recommended. In long-term controlled studies with high dosages of Pre-Sate, abrupt cessation did not result in symptoms of withdrawal.

Usage In Pregnancy: The safety of Pre-Sate (chlorphentermine hydrochloride) in human pregnancy has not yet been clearly established. The use of anorectic agents by women who are or who may become pregnant, and especially those in the first trimester of pregnancy, requires that the potential benefit be weighed against the possible hazard to mother and child. Use of the drug during lactation is not recommended. Mammalian reproductive and teratogenic studies with high multiples of the human dose have been negative.

Usage In Children: Not recommended for use in children under 12 years of age.

Precautions: In patients with diabetes mellitus there may be alteration of insulin requirements due to dietary restrictions and weight loss. Pre-Sate (chlorphentermine hydrochloride) should be used with caution when obesity complicates the management of patients with mild to moderate cardiovascular disease or diabetes mellitus, and only when dietary restriction alone has been unsuccessful in achieving desired weight reduction. In prescribing this drug for obese patients in whom it is undesirable to introduce CNS stimulation or pressor effect, the physician should be alert to the individual who may be overly sensitive to this drug. Psychologic disturbances have been reported in patients who concomitantly receive an anorexic agent and a restrictive dietary regimen.

Adverse Reactions: Central Nervous System: When CNS side effects occur, they are most often manifested as drowsiness or sedation or overstimulation and restlessness. Insomnia, dizziness, headache, euphoria, dysphoria, and tremor may also occur. Psychotic episodes, although rare, have been noted even at recommended doses. **Cardiovascular:** tachycardia, palpitation, elevation of blood pressure. **Gastrointestinal:** nausea and vomiting, diarrhea, unpleasant taste, constipation. **Endocrine:** changes in libido, impotence. **Autonomic:** dryness of mouth, sweating, mydriasis. **Allergic:** urticaria. **Genitourinary:** diuresis and, rarely, difficulty in initiating micturition. **Others:** Paresthesias, sural spasms.

Dosage and Administration: The recommended adult daily dose of Pre-Sate (chlorphentermine hydrochloride) is one tablet (equivalent to 65 mg chlorphentermine base) taken after the first meal of the day. Use in children under 12 not recommended.

Overdosage: Manifestations: Restlessness, confusion, assaultiveness, hallucinations, panic states, and hyperpyrexia may be manifestations of acute intoxication with anorectic agents. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension, or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Fatal poisoning usually terminates in convulsions and coma.

Management: Management of acute intoxication with sympathomimetic amines is largely symptomatic and supportive and often includes sedation with a barbiturate. If hypertension is marked, the use of a nitrate or rapidly acting alpha-receptor blocking agent should be considered. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendations in this regard.

How Supplied: Each Pre-Sate (chlorphentermine hydrochloride) tablet contains the equivalent of 65 mg chlorphentermine base; bottles of 100 and 1000 tablets.

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IOWA MEDICAL MISCELLANY

(Continued from page 223)

House of Delegates by Foundation President Ralph Wicks, M.D. The total amount of Foundation money now on loan to active medical students is $37,714. Twenty-six students have received loans this academic year; however, one student was killed in a tragic airplane accident in March.

RECEIVE GRANT . . . A $242,486 federal grant has been awarded to the Cherokee Mental Health Institute to undertake a drug abuse service project. Required to be innovative in nature, the grants provided in this program by the National Institute of Mental Health must embody broad community services so the drug abuser has access to a full continuum of care.

TO REPRESENT IMS . . . Carroll O. Adams, M.D., Mason City will represent the Society in a liaison capacity on the Medical Statistics Committee of the Iowa Hospital Association. This IHA committee is undertaking a computerized study of hospital utilization under a federal grant. Dr. Adams is chairman of the IMS Committee on Economics of Health Care.

FOUNDATION FOR MEDICAL CARE . . . A grant of $30,000 has been provided to the Iowa Foundation for Medical Care by The John Deere Company. The grant is to assist the Foundation in the development of its program. Additionally, Foundation officials appeared in April before a team from the National Center for Health Services Research and Development to amplify a written proposal for funding. Further, Foundation personnel met in April with representatives of Peat, Marwick and Mitchell to learn of this firm's capabilities in Foundation-related areas. Finally, the Foundation in April employed Mr. Richard L. McMaster as an executive assistant.

SPORTS CONFERENCE . . . 338 coaches, physicians and other interested persons participated in the March 30 Conference on Medical Aspects of Sports in Des Moines. The conference was a joint project of the Society and the Iowa High School Athletic Association. Please see page 234 for pictures taken at the conference.

PROFESSIONAL LIABILITY . . . The Society's Medico-Legal Committee has met in recent weeks with representatives of four insurance companies which provide coverage in the malpractice area. Three of the companies submitted proposals which invite the Society to endorse or sponsor a particular professional liability program. A progress report on the matter was submitted by the Committee to the 1972 House of Delegates.

ABOARD HOPE . . . Retired pathologist David O. Holman, M.D., Ottumwa, recently completed a two-month tour of duty aboard the Ship HOPE. The HOPE is now making a port call in Natal, Brazil.

TOUR OAKDALE . . . The Society's Committee on Delivery of Health Services met in Oakdale recently to tour the new Model Family Practice Clinic now in operation there. A report on the meeting was submitted to the IMS Executive Council in April by Max Olsen, M.D., Minden, the committee chairman.

ACCREDITATION . . . The 1972 listing of facilities approved by the Accreditation Council for Long-Term Care Facilities includes from Iowa 14 extended care facilities, 15 nursing care facilities and two resident care facilities. The Council is an adjunct to the joint Commission on Accreditation of Hospitals.

IRMP PROGRAMS FUNDED . . . Iowa Central Community College has received a $13,285 IRMP grant to establish a comprehensive program of health occupations continuing education in its nine-county service area. An $18,927 grant has been authorized for a renal disease program development project which is sponsored by the Kidney Foundation of Iowa.

PHOTO AWARD . . . John W. Moberly, M.D., Dubuque, is one of three physicians to win awards in the 1971 Kodak International Newspaper Snapshot competition sponsored by Eastman Kodak and conducted by 92 newspapers. Dr. Moberly's color photo of a windmill silhouetted against a sunset won the contest of the DUBUQUE TELEGRAPH HERALD.

WAVERLY WINNER . . . Renee Dunlap, Waverly high school student, is the first-place winner of an essay writing contest conducted by the Governor's Committee on Employment of the Handicapped. A $100 savings bond provided by Scanlon Medical Foundation/IMS was presented to Renee by A. M. Harwood, M.D., president of the Bremer County Medical Society, at an April 11 school assembly in Waverly.

THORACIC MEETING . . . Annual meeting of the Iowa Thoracic Society will occur May 10 at the Veterans Administration Hospital in Des Moines. The meeting will convene at 1 p.m. and will include four presentations: *Chest X-ray Appearance of Some Systemic Diseases*—Ralph Schapiro, M.D.; *Diagnostic Value of Fiberoptic Bronchoscopy*—H. R. Richardson, M.D.; *Empyema*—Wm. C. Weese, M.D.; and *Role of Oxygen in Respiratory Failure (With Emphasis on Oxygen Toxicity)*—John A. Pierce, M.D., Professor of Medicine, Washington University, St. Louis. The first three speakers are associated with The University of Iowa. Craig Champion, M.D., Iowa City, is the session chairman.

About IOWA Physicians

Dr. Theodore Zeran has opened an office for the private practice of ophthalmology in Burlington. A former staff member of the Mayo Clinic in Rochester, Dr. Zeran received the M.D. degree at The U. of I. College of Medicine, and completed his internship at Broadlawns Hospital in Des Moines. Following his internship Dr. Zeran served two years with the U. S. Public Health Service in Washington, D. C. Before starting a 39-month training fellowship in ophthalmology at the Mayo Clinic, Dr. Zeran was a general practitioner in Fort Dodge.

Dr. Patrick J. Cusack, of Fort Madison, has been elected president of the Sacred Heart Hospital medical staff and to the lay advisory board of the institution. **Dr. H. B. Helling,** and **Dr. Frank Harper,** also of Fort Madison, have been named vice president and secretary, respectively.

Dr. Paul Ferguson, of Lake City, has been appointed by **Governor Robert Ray** to serve on the Judicial District 2B Nomination Commission.

Dr. Willard Kuehn, and **Dr. B. A. DeLeon,** both Clarinda physicians, recently participated in a panel discussion on drug use and abuse at Iowa Western Community College.

Dr. John Doran, of Ames, recently gave a presentation to a group of Webster City High School students on venereal disease.

Dr. John W. Eckstein, dean of The U. of I. College of Medicine, discussed "Developments and Prospects—The U. of I. College of Medicine," at the recent Family Physician Conference in Iowa City. "101 New Things in Medicine," was the theme of the medical conference attended by nearly 450 family physicians.

Dr. Coleman C. Burns, Jr., a Waterloo psychiatrist, reviewed the neurological functions involved in learning to read at a recent meeting of the Black Hawk County Association for Children with Learning Disabilities in Cedar Falls.

Dr. Charles E. White, director of education and research at the Independence Mental Health Institute, has retired after 41 years of practice in psychiatry. A graduate of the Boston University School of Medicine, Dr. White is a life member of the New England Psychiatric Association and a diplomate of the American Boards of Psychiatry. Fellowship in the American Psychiatric Association was conferred on Dr. White in 1967. He and Mrs. White plan to move to Post Falls, Idaho, in early April.

Dr. Donald J. Soll, of Denison, has been named president of the Crawford County Heart Association, and **Dr. M. U. Broers,** of Schleswig, has been designated vice president.

Dr. A. Dudley Dennison, Jr., of Panora, was featured speaker at a recent father-son banquet in Webster City. His topic was "The Heart Has Many Faces." Dr. Dennison is the former chief of cardiology and assistant chief of medicine at Veterans Hospital in Des Moines.

Dr. Frank R. Richmond, Sr., of Fort Madison, was honored recently by Fort Madison and the Lee County Medical Societies for 50 years in the medical profession. A highlight of the recognition dinner was the presentation to Dr. Richmond of a plaque by Fort Madison Medical Society President **Dr. Patrick Cusack.** Dr. Richmond received a gold watch from the Lee County Medical Society which was presented by **Dr. Harry Harper, Jr.** The dinner program included narration and film slides on the life of Dr. Richmond presented by **Dr. George C. McGinnis.**

Dr. Paul From, of Des Moines, was guest speaker at a recent meeting of the Iowa Diabetes Association. Dr. From spoke on "Heart and Diabetes and New Treatments."

Dr. C. Robert Osborn, of Dexter, discussed his two-week medical stint in Haiti at a recent meeting of the Redfield Lions Club.

Dr. Faye C. Lewis, a retired Webster City physician, has authored a new book entitled, "Nothing to Make a Shadow." The book relates Dr. Lewis' experiences as the child of a pioneer family on the prairies of South Dakota.

Dr. Richard O. Emmons, of Clinton, **Dr. Albert E. Montgomery,** of Estherville, and **Dr. Andrew C. Hyden,** of Sioux City, have been designated new members of the American College of Physicians.

Dr. Donovan F. Ward, of Dubuque, recently addressed the Honolulu County Medical Society and the Maui County Medical Society in Hawaii. Dr. Ward, a past president of the American Medical Association, discussed the aims and accomplishments of the AMA.

Dr. Stuart Leafstedt, of Sioux City, has been named chairman of the medical doctors division of 1972 Cancer Crusade in Woodbury County.

Dr. A. D. Dennison, of Panora, was recently appointed to the consulting staff of the Dallas County Hospital at Perry. Dr. Dennison previously served as Chief of Cardiology and Assistant Chief of Medical Service at the VA Hospital in Des Moines.

Dr. Herbert Neff, of Guthrie Center, has been named a charter diplomate of the American Board of Family Practice.

Dr. John L. Beattie, of Creston, has terminated his practice of surgery at Creston Medical Clinic, and has joined **Dr. John Gustafson** and Associates of Des Moines which provides emergency medical coverage for Iowa Methodist Hospital. Dr. Beattie practiced medicine in Creston for 12 years. He recently attended a seminar in emergency room management at Ann Arbor, Michigan.

Dr. D. W. Wright, of Decorah, has been named president of the Winneshiek County Memorial Hospital medical staff; **Dr. Garfield Miller,** of Calmar, vice-president; and **Dr. Conrad Larson,** of Decorah, secretary-treasurer.

Dr. Wing Tai Fung, a Chinese physician who came to Harlan last fall, was the central figure at a Harlan luncheon celebration of the Chinese New Year. The Harlan Chamber of Commerce sponsored the luncheon. Dr. Fung is associated with **Drs. Carl V. Bisgard** and **Lawrence V. Larsen** in Harlan.

Dr. Daniel M. Kelly, of Emmetsburg, participated in a recent one-day workshop entitled, "Epilepsy Alert for School Personnel," at the South Campus of Iowa Lakes Community College in Emmetsburg. The program was coordinated by the Iowa Chapter of the Epilepsy Foundation of America.

Dr. D. K. Benge, of Hampton, has been re-elected chairman of the Franklin County Board of Health.

Dr. W. C. Ross has become associated with **Drs. Don C. Green** and **Harold E. Eklund** at the Urbandale Medical Clinic in Des Moines. Dr. Ross is a graduate of the University of Arkansas School of Medicine. He completed his internship at Mercy Hospital in Des Moines and has been in private practice since July, 1969.

Dr. Charles R. Argo, of Oskaloosa, spoke on "Hazards of Farm Accidents and Diseases," at a recent meeting of the Black Oak and Scott Homemakers in Oskaloosa.

Dr. Christian Radcliffe, professor of dermatology at The U. of I. College of Medicine, and **Dr. Philip Schap,** a former resident in dermatology at The U. of I. and now in private practice in Mason City, received the Silver Award for their exhibit at the annual meeting of the American Academy of Dermatology. The exhibit concerned a method of skin treatment.

Dr. F. X. Tamisiea, of Missouri Valley, spoke on the clinical approach to acid-base problems in medicine at a recent meeting of District No. 15 Iowa Nurses Association in Spirit Lake.

Dr. B. V. Anderson, of Greene, was elected chairman of the Butler County Health Assembly at its organizational meeting in Greene.

Dr. T. M. Redmond, a Monticello physician for more than 50 years and now deceased, was recently named to Monticello's Hall of Fame. The Monticello Hall of Fame was established in 1970 to recognize persons who have made outstanding contributions to the community through the years. In 1957, Dr. Redmond was named Iowa's General Practitioner of the Year.

Dr. Robert Rakel, chairman of the Family Practice Department at The U. of I. College of Medicine, and **Dr. Thornton Bryan,** director of the Oakdale Family Practice Clinic, described their activities at a recent meeting of the Palo Alto County Medical Society. **Dr. Harold Brereton,** who recently retired from active practice in Emmetsburg, received a gift at the meeting from the Palo Alto County Medical Society and the Palo Alto County Nurses' Association. Dr. Brereton practiced in Palo Alto County for 50 years.

Dr. Enrique Cubillo, of Des Moines, was recently named a member of the American College of Radiology.

Dr. John W. Ferguson, of Newton, was elected medical director of the Alcoholism Program at a March board meeting of the Central Iowa Foundation for Alcoholism.

Dr. John C. MacQueen, associate dean and professor in the Department of Pediatrics at The U. of I. College of Medicine, was the principal speaker at a recent day-long program on epilepsy at the University of Northern Iowa.

Dr. Donald C. Schenck, a native of Parkston, South Dakota, and **Dr. Carl Held,** a native of New York City, have joined the medical staff of St. Joseph Mercy Hospital in Sioux City. Dr. Schenck received the M.D. degree at the University of Texas and interned at Santa Clara County Hospital in San Jose, California. He recently completed a fellowship residency in radiology at Veterans Hospital in Minneapolis and the University of Minnesota. Dr. Held received the M.D. degree at Albany Medical College. Following internship and two years of internal medicine residency at Presbyterian Hospital in Denver, Colorado, he entered the field of psychiatry at Barnes Hospital, Washington University, St. Louis, Missouri. Prior to moving to Sioux City, Dr. Held was in private practice in Denver, Colorado.



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At an organizational meeting of the North Iowa Medical Center Board, a nonprofit corporation, **Dr. Alfred J. Herlitzka** and **Dr. Carroll Adams,** both Mason City physicians, were elected board members. Purpose of the Board is to study, analyze and evaluate the various alternatives available to assure the future quality of health care in north central Iowa.

Dr. T. J. Carroll, of Sibley, participated in a recent panel discussion on "Parents Look at Drugs and Venereal Disease," at an open meeting in Sibley.

Dr. Charles F. Johnson, an associate professor of pediatrics and assistant director of the Child Development Clinic at The U. of I. College of Medicine, was a guest speaker at a recent meeting of the West Liberty parent-teacher organization. Dr. Johnson spoke on "School Failure—Who Is to Blame?"

Dr. R. S. Gerard, of Waterloo, recently presented the Black Hawk County Chapter of the American Red Cross a set of films entitled, "Standard First Aid Medical Course." Provided by the Black Hawk County Medical Society, the films will make it possible to teach the entire first aid course in one eight-hour period.

Dr. Bernard L. Trey, a Marshalltown obstetrician and gynecologist, has retired after 53 years of medical practice in Marshalltown. Dr. Trey, who recently celebrated his 80th birthday, delivered about 6,500 babies during his medical career—five of whom arrived in a 24-hour period.

Dr. Andrew C. Hyden, of Sioux City, and **Dr. Albert E. Montgomery**, of Estherville, have been named to membership in the American College of Physicians.



SPORTS MEDICINE CONFERENCE

Three hundred and thirty-eight coaches, physicians and other interested individuals attended the Conference on Medical Aspects of Sports presented March 30 in Des Moines by the Iowa Medical Society and the Iowa High School Athletic Association.

Pictured here (upper) are some of the physicians who attended. Left to right are W. K. Dankle, M.D., Clear Lake, C. S. Wuest, M.D., Marshalltown, W. D. Paul, M.D., Iowa City, Donald Cooper, M.D., Stillwater, Okla. (the keynote speaker), J. H. Spearing, M.D., Harlan, and R. W. Anderson, M.D., Des Moines.

Below are the trainers from Iowa's major universities at work. Left to right are Frank Randall, Iowa State; Ben Mankowski, Drake; Elmer Kortemeyer, Northern Iowa; and Tom Spalj, University of Iowa.









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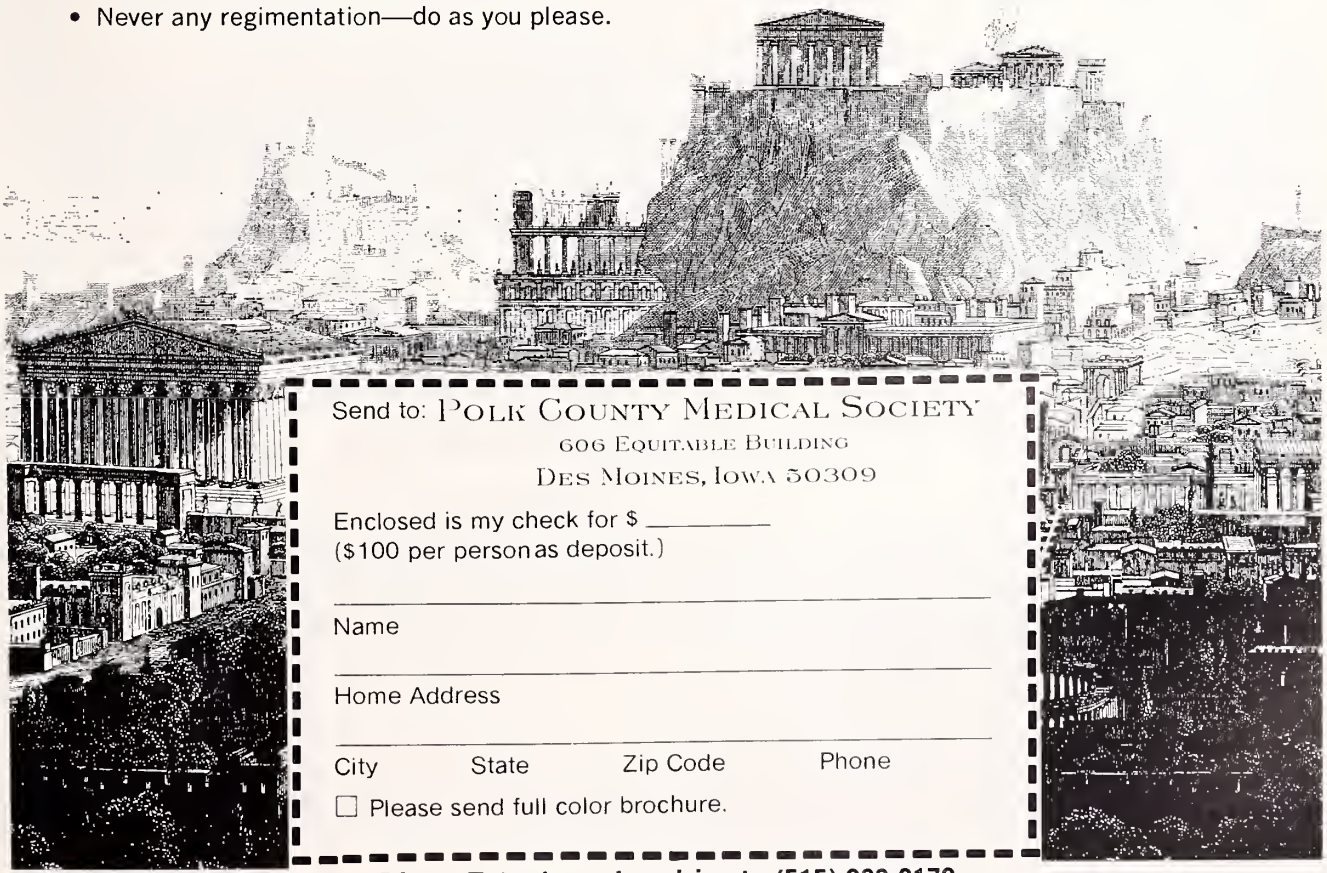
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on "The Endeavor and Accomplishments of Walter Reed"; and he reported on "Treatment by Nutrition" at an American College of Physicians Conference at the University of Pennsylvania. Dr. Bean is presently on leave of absence from The U. of I. and is completing a book on Walter Reed at the University of Virginia.

Dr. Jed Paul, of Creston, recently presented a program on "X-ray and Cobalt Therapy" for members of the Registered Nurses Association. The program included a tour of the group of the radiology department of the Greater Community Hospital in Creston.

Dr. Warren Wulfekuhler, a Mason City urologist, was guest speaker at the March meeting of the Wright County Medical Society. Dr. Wulfekuhler gave a slide-lecture on his land-based Project HOPE experience with the Navajo Indians.

Dr. Asghar A. Shah, psychiatrist at the Mental Health Institute in Independence, has been named director of education and research at the facility. Dr. Shah was certified by the American Board of Psychiatry and Neurology last November and has been staff psychiatrist since September, 1968. He is a member of the American Psychiatric Association and the Iowa Psychiatric Society. The directorship was held by **Dr. Charles White** who retired last month.

Dr. and Mrs. Charles H. Coughlan, of Fort Dodge, have returned from a trip to Africa sponsored by the North Central Medical Conference.

Dr. Clyde Deal, a West Union surgeon, has been named to the medical staff at Sumner Community Memorial Hospital. Prior to moving to West Union, Dr. Deal was on the staff of Providence Hospital in Anchorage, Alaska.

Dr. Einer Juel, of Atlantic, was guest speaker at a recent meeting of the Willing Weight Watchers Club in Walnut. Dr. Juhl spoke on "Diet and Nutrition."

Dr. E. A. Kjenaas, medical director of the Northwest Iowa Mental Health Center, discussed his experiences in dealing with foster children at a recent Spencer meeting of foster parents and those interested in becoming foster parents in Clay and Buena Vista Counties.

Dr. Francis L. Coyle, of Waterloo, was the guest speaker at a recent meeting of the Association of Operating Room Nurses of North Central Iowa. Dr. Coyle described the pacemaker and its use.

Dr. R. W. Linthacum, of Dysart, is the 1972 recipient of the Dysart Jaycees' Distinguished Service Award.

Dr. Harold C. Rankin, of Mt. Pleasant, was recently elected to the Iowa Wesleyan College Board of Trustees.

Dr. Webster B. Gelman, an Iowa City orthopedic surgeon, addressed the Mexican Orthopedic Society at its annual meeting in Mexico City. Dr. Gelman presented a paper entitled, "Myelography of the Lumbar Spine: Personal Experiences of 25 Years." He also participated in a round table discussion on lower back pain.

Dr. James Healy, a Cedar Falls pediatrician, spoke on emotional and physical health at a recent meeting of the Orchard Hill P.T.A. in Cedar Falls.

DEATHS

Dr. Elmer H. Littig, 67, of Mechanicsville, died March 4 at St. Luke's Hospital in Cedar Rapids. A 1930 graduate of The U. of I. College of Medicine, Dr. Littig served his internship at Fitzsimons General Hospital in Denver, Colorado. He was on the staff of both Mercy and St. Luke's Hospitals in Cedar Rapids and had practiced medicine in Mechanicsville since 1935. Dr. Littig was a member of the Iowa Medical Society and the American Medical Association.

Dr. Andrew W. Puntenney, 60, of Boone, died March 8 at his home in Des Moines. Dr. Puntenney received the M.D. degree at the University of Kansas Medical School. He practiced medicine in the Boone area from 1947 to 1971 when he accepted a position with Veterans Hospital in Des Moines. He was a member of the American Academy of General Practice, Interstate Postgraduate Association, of which he was a former vice president, Iowa Medical Society and American Medical Association.

Dr. J. J. Stegman, 68, a retired Marshalltown physician and surgeon, died March 15 at his home. A 1929 graduate of The U. of I. College of Medicine, Dr. Stegman interned at St. Louis City Hospital and began his practice of medicine in Marshalltown in 1932. In 1966 he was invested with the knighthood of St. Gregory the Great, highest papal honor accorded to Catholic laymen. Dr. Stegman was an honorary member of the Kiwanis Club, member of Knights of Columbus, Iowa Medical Society and American Medical Association.

Dr. John H. Henkin, 81, a Sioux City physician for 53 years, died March 9 at a Sioux City hospital. Dr. Henkin received the M.D. degree at Northwestern University Medical School in 1915 and served his internship at Cook County Hospital in Chicago. He was a fellow of the American College of Surgeons, a charter member of the medical staff of St. Luke's Medical Center, a member of the Iowa Medical Society and American Medical Association.

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GENERAL PRACTITIONER NEEDED: Practice with complete freedom of action in a rural atmosphere? Office next to pharmacy, ready for occupancy, no unseen strings. Moville, Iowa, 15 miles east of Sioux City offers just such a chance. Contact Moville Community Development Association, Inc., Moville, Iowa.

EMERGENCY ROOM PHYSICIANS—Need two doctors to join two young physicians presently working as Emergency Department Physicians. Midwestern city, quite progressive with excellent school system, recreational facilities and very pleasant surroundings. Pay on fee for service basis with guaranteed minimum. Minimum 42-hour week. Address your inquiry to No. 1471, Journal of the Iowa Medical Society, 1001 Grand Avenue, West Des Moines, Iowa 50265.

IMMEDIATE OPENING for Ob-Gyn, Internal Medicine, and Orthopedic specialties to establish successful practice with 14-man multi-specialty group. Excellent group benefits; pension plan; modern clinic facilities; progressive community with excellent educational system including two colleges; city population 35,000; good recreational facilities; each specialty must be board eligible or certified; young man with military obligation completed. Contact: Business Manager, The Manitowoc Clinic, 601 Reed Avenue, Manitowoc, Wisconsin 54220.

EXCELLENT OPPORTUNITY FOR GENERAL PRACTITIONER in clean air community. All the work you desire in Jesup community of 1,700 plus 5 smaller surrounding towns to draw from. Brick office building located in business district. Spacious brick home, beautiful setting, 6 blocks from office. GP retiring after 39 years in Jesup. Write R. L. Knipfer, M.D., Jesup, Iowa 50648.

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UNOPPOSED EENT PRACTICE—Growing town of 28,000. Retiring. Will accept half the value of excellent equipment available in payment. Includes patient files, 2 motor chairs, Green's Refractor, Haag-Streit Slit Lamp, Applanation Tonometer, Radiuscope, Audiometer, etc. Could readily convert to straight otolaryngology or especially ophthalmology. Address your inquiry to No. 1469, Journal of the Iowa Medical Society, 1001 Grand Avenue, West Des Moines, Iowa 50265.

EMERGENCY ROOM COVERAGE, Mercy Hospital, Cedar Rapids, Iowa. Modern, well-equipped hospital, guaranteed income. Excellent staff specialists on call for specialized needs. 42 hours per week. Progressive city 25 miles from State University of Iowa Medical School. Good recreational facilities, excellent school system. Contact by telephone or write to: Bernard M. Grahek, 319-398-6133, Mercy Hospital, 701 Tenth Street, S.E., Cedar Rapids, Iowa 52403.

INTERNISTS WANTED—Board eligible or board certified to join young internist in solo practice. Early partnership. Excellent salary. Northeast Iowa community of 80,000. Write No. 1472, Journal of the Iowa Medical Society, 1001 Grand Avenue, West Des Moincs, Iowa 50265.

GENERAL PRACTITIONER NEEDED in small community near Cedar Rapids and Iowa City. Fully equipped office on ground floor includes G. E. Mobile X-ray machine; Burdick Cardiograph machine; AMSCO Dynapoise examining table; Dows colorimeter centrifuge and heating block for analysing; hospital cart and record-O-fone. For sale or lease. Only doctor retiring because of poor health. Inquire Elmer H. Littig, M.D., Mechanicsville, Iowa 52306 or call 319-432-6338.

LOCUM TENENS WANTED in rural general practice 20 miles southwest of Waterloo for June, July or August, 1972. Salary $2,200 per month. Write No. 1473, Journal of the Iowa Medical Society, 1001 Grand Avenue, West Des Moines, Iowa 50265.

LOCUM TENENS POSITION—AVAILABLE IMMEDIATELY. Des Moines physician desires general practitioner or internist for short-term assistance. For further information, write No. 1474, Journal of the Iowa Medical Society, 1001 Grand Avenue, West Des Moines, Iowa 50265.

WANTED NOW—General practitioner, internist, pediatrician, obstetrician and gynecologist in a moderate sized Iowa community. Practice opportunities excellent. Address your inquiry to No. 1475, Journal of the Iowa Medical Society, 1001 Grand Avenue, West Des Moines, Iowa 50265.

INFECTIOUS DISEASE FELLOWSHIP—U. S. licensed physician. 2-3 years after M.D. Balanced program of clinical, research and teaching opportunities in 1600-bed University VA Hospital Complex. July 1, 1972. $11,000-$13,000. Contact Ian M. Smith, M.D., Department of Internal Medicine, U. of I. College of Medicine, Iowa City, Iowa 52240.

PRACTICE AVAILABLE—GP or internist wanted to take over practice in progressive Iowa college community of 8,000. Well-equipped, central air-conditioned office, two examing rooms (one Ritter equipped and one Hamilton equipped). Records available. Health forcing retirement. Contact Edward F. Hagen, M.D., Decorah, Iowa 52101.

FOR SALE—Dictionaries, Webster. Library size, 1971 edition, brand new, still in box. Cost new: $45.00. Will sell for $15. Deduct 10% on orders of 6 or more. Mail to North American Liquidators, 1450 Niagara Falls Blvd., Tonawanda, New York 14150. C.O.D. orders enclose $1.00 good will deposit. Pay balance plus C.O.D. shipping on delivery. Be satisfied on inspection or return within 10 days for full refund. No dealers, each volume specifically stamped not for resale. Please add $1.25 postage and handling. New York State residents add applicable sales tax.

200-BED HOSPITAL needs fourth emergency room physician. City of 20,000, twenty miles from Florida line. Exceptional recreation area, golf, fishing, hunting. $35,000 guarantee. Contact Director, John D. Archbold Memorial Hospital, Thomasville, Ga. 31792 or call 912-226-4121.

WANTED: FOURTH FAMILY PRACTITIONER to join in a three-man G.P. Partnership in south central Nebraska. Town population 6,000 with drawing area of 10,000. New modern clinic and 40-bed hospital. 15 minutes from 2500 acre lake with all water sports, good fishing, and hunting. Six months trial period, salary negotiable. Early partnership with equal sharing vacation time, Post-Grad. time, on call duties, and eventual equal investment. Write Box 797, Lexington, Nebraska 68850.

LOCUM TENENS WANTED in city of Fort Dodge for June, July, and August, 1972. Arrangements can be made for any variation of the above months. Solo practice. Salary $2,200 per month. Air conditioned home will be furnished. Call 515-576-7268 collect or write Gerald Sunner, M.D., Suite 412, Carver Building, Fort Dodge, Iowa 50501.

PSYCHIATRIST-CHALLENGING OPPORTUNITY TO practice progressive and innovative treatment to wide variety of mental disorders; excellent facilities and ancillary staff; comfort of small town living with nearby city conveniences; excellent school system; good climate; regular hours, 30-day vacation, etc. retirement, life, health ins. plans; can pay moving expenses; salary range $23,424-$29,848; any state or DC license required; equal opp. employer. Write Chief of Staff, VA Hospital, Salisbury, N. C. 28144.

TWO VACANCIES IN JUNE: PSYCHIATRIST AND Internist or General Medicine. Active outpatient clinic, Winston-Salem. Normally 40-hour workweek. Excellent facilities, retirement and insurance plans; liberal vacation and sick leave benefits. Can pay moving expenses. Salary range $23,424-$29,848. Any state or DC license required. Equal opp. employer. Write Chief of Staff, VA Hospital, Salisbury, N. C. 28144.

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LIST YOUR WANTS

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Doctor's Business

by LARRY E. LEAVERTON

OFFICE SECURITY AND INTERNAL CONTROL

It is a sad situation when business firms, including professional offices, must take precautions against break-ins, thefts of equipment and office funds and vandalism. Estimates of these losses run into the high millions annually.

While insurance can and should be carried against losses of this type, there are reasonable and prudent steps that can be taken to tighten the security in a physician's office.

If your office is in an area particularly vulnerable to break-ins, there are alarm systems of all types which can be installed by firms specializing in security equipment. Adequate after-hours lighting is another deterrent to break-ins.

Keep only a minimum supply of drugs on hand in a securely locked cabinet or safe.

Avoid an accumulation of cash by making frequent bank deposits.

Internal Control, in the business sense, means an orderly and accurate system for accounting for the flow of cash through your office. With the increasing volume of charges and cash transactions in physicians' offices, it is important that all reasonable steps be taken to insure accuracy in the handling of receipts and deposits.

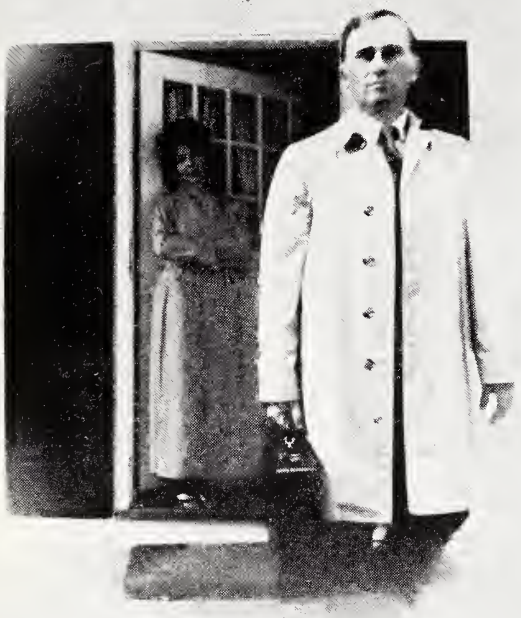
Good basic procedures to eliminate most inaccuracies in your system, or dishonesties on the part of your employees include:

- A requirement that pre-numbered receipts be written for all monies received.
- A daily balance of cash receipts—i.e. total payments for day equals total cash on hand at the end of the day.
- Require even days' deposits—deposits of entire days' receipts intact.
- Bank deposit slips in duplicate with names listed.
- A separate Petty Cash fund for small cash expenditures, supported by an itemization of all expenditures.
- Verification of receipts periodically by the doctor or an outside party.
- Verification of bank reconciliation.
- Distribution of the duties of proving and balancing cash to two or more assistants. For example, one assistant receives cash, the other makes the deposit and prepares and mails statements.
- Carry a control account for accounts receivable from patients and verify periodically. An accounts receivable control is maintained by setting up an initial control figure of the total of your accounts receivable from patients and adding or subtracting the increase or decrease of charges and receipts each day or month. This running total can then be verified with an adding machine total of your accounts receivable. Differences in these two totals will point up most inaccuracies or irregularities.
- Whether you are using a pegboard, posting machine, computer, or manual system for your accounts receivable system, all charges, payments, discounts or refunds should be reflected on the daybook or daily summary sheet.
- Withdrawals by cash by the doctor should be discouraged. If personal cash is needed the medical assistant should ask for a personal check so her receipts will stay in balance.
- Insist that proper time be allotted to balancing and proving cash. Lack of time is a frequent excuse given for the absence of good internal control procedures. Most doctors greatly underestimate the time necessary to properly handle office records.
- In selecting office personnel, choose those of high caliber, check their references, compensate them well, and maintain high morale in the office.
- Obtain fidelity bond coverage as a standard office policy.
- Finally, if the physician is financially successful, care should be taken not to flaunt this wealth to the employees or community.

These methods will not be an absolute guarantee that you will have 100% security in your office, but they are sound procedures and can be a good deterrent to unplanned losses.

Mr. Leaverton is Director of Research and Development for Professional Management Midwest.

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When it's mandatory to keep the post-coronary patient calm, consider Valium (diazepam).

Although he's promised to take it easy back on the job, you know he's going back to the same stressful circumstances that may have contributed to his hospitalization. If he experiences excessive anxiety and tension because of overreaction to stress, your prescription for Valium can bring relief. During the period of readjustment Valium can quiet undue anxiety.

For moderate states of psychic tension, 5-mg or 2-mg Valium tablets *b.i.d.* to *q.i.d.* can usually provide reliable relief. For severe tension/anxiety states, the 10-mg tablets often produce desired results.

The most commonly reported side effects are drowsiness, ataxia and fatigue. Until individual response is determined, caution patient against driving or operating dangerous machinery.

Valium® (diazepam)

For the tense cardiac patient who must be kept calm

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

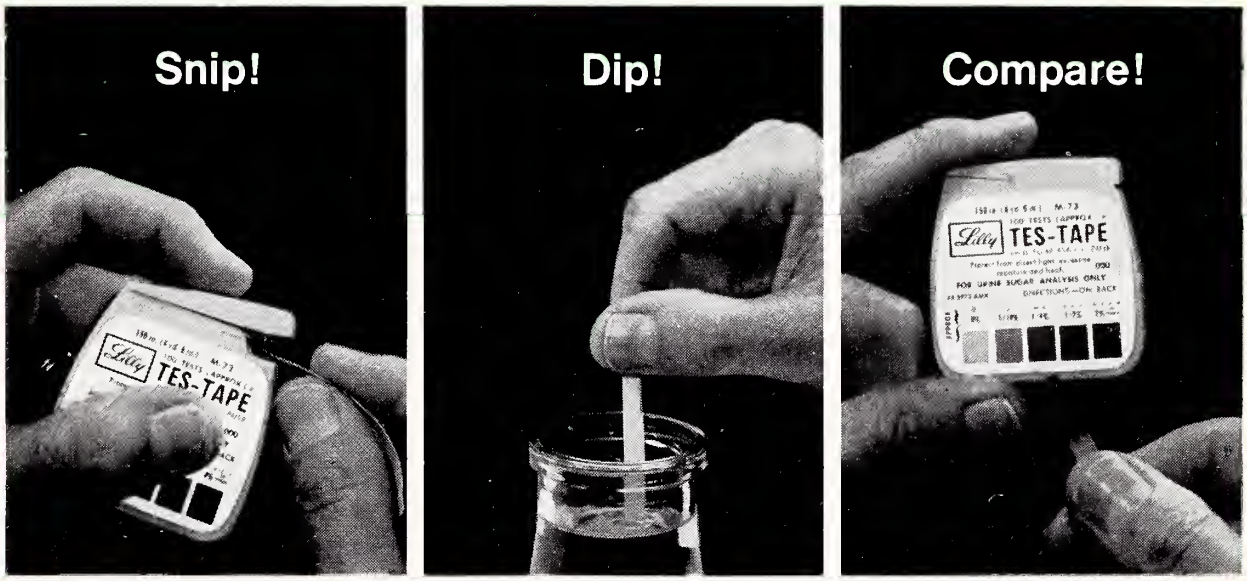
Dosage: Individualize for maximum beneficial effect. *Adults:* Tension, anxiety and psychoneurotic states, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

Supplied: Valium® (diazepam) Tablets, 2 mg, 5 mg and 10 mg; bottles of 100 and 500. All strengths also available in Tel-E-Dose® packages of 1000.

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JUNE 1972



Everybody experiences psychic tension.



Most people can handle this tension.



Some people develop excessive psychic tension and need your counselin



and a few may need counseling
and the psychotropic action of Valium® (diazepam).

Before deciding to make Valium (diazepam) part of your treatment plan, check on whether or not the patient is presently taking drugs and, if so, what his response has been. Along with the medical and social history, this information can help you determine initial dosage, the possibility of side effects and the ultimate prospects of success or failure.

While Valium can be a most helpful adjunct to your counseling, it should be prescribed only as long as excessive psychic tension persists and should be discontinued when you decide it has accomplished its therapeutic task. In general, when dosage guidelines are followed, Valium is well tolerated (see Dosage). For convenience it is available in 2-mg, 5-mg and 10-mg tablets.

Drowsiness, fatigue and ataxia have been the most commonly reported side effects.

Until response is determined, patients receiving Valium should be cautioned against engaging in hazardous occupations requiring complete mental alertness, such as driving or operating machinery.

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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

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Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. *Adults:* Tension, anxiety and psychoneurotic states, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

Supplied: Valium® (diazepam) Tablets, 2 mg, 5 mg and 10 mg; bottles of 100 and 500. All strengths also available in Tel-E-Dose® packages of 1000.

Valium®
(diazepam)

To help you manage excessive psychic tension

President's Page



The latest movement to develop from the grass roots level of medicine is that of promoting unionism, even to the extent of affiliation with the AFL-CIO.

This scattered activity demonstrates member dissatisfaction with organized medicine in its efforts to be militant in dealing with third parties. Bear in mind however that a union can never represent professional people who deal in services.

Three dimensions of your practice need protection. There needs to be:

1. Total fairness for patient and physician through adequate and prompt quality-type peer review mechanisms.

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Become active in it for your own sake.

H E Eckerle, MD

President

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IOWA Medical Miscellany

ANNUAL MEETING HIGHLIGHTS . . . A summary of the 1972 IMS Annual Meeting was distributed May 2 in the form of an IMS NEWS BULLETIN. The complete proceedings will be carried in the July issue of THE JOURNAL. In review, the 1972 House of Delegates approved separation of Society business and scientific sessions and provided for two meetings of the House per year . . . called for appointment of a committee to study the structure of and representation in the House . . . urged further Society involvement in the physician's assistant activities . . . authorized use of a consultant in study of professional liability insurance . . . approved distribution of a communication to IMS members urging prescription limitations on amphetamines . . . endorsed member efforts to reduce cigarette smoking among patients and general public . . . called for ongoing scrutiny of HMO legislative proposals, with contracting for physician services as a key element . . . advocated legislation permitting physicians to serve on boards of county hospitals . . . noted good relations between IMS and Blue Shield and urged further improvement of Blue Shield programs . . . requested Blue Shield to confer with the Insurance Commissioner about removal of "hold harmless" from UCR contract . . . urged Blue Shield to honor assignments to any physician whom the policy holder may designate . . . opposed third party program provisions restricting prescriptions to generic drugs . . . authorized transfer of peer review to Iowa Foundation for Medical Care at a mutually acceptable date, retaining within the Society, however, the Committee on Medical Review . . . maintained the Society's policy on surgery and surgical assistants with request that it continue to be under evaluation.

LIFE MEMBERSHIPS . . . Accorded Life Membership in the Iowa Medical Society at the time of the 1972 Annual Meeting were R. J. Harrington, M.D., Sioux City, L. E. Jensen, M.D., Audubon, R. N. Larimer, M.D., Sioux City, J. C. McKitterick, M.D., Burlington, C. P. Phillips, M.D., Clear Lake (formerly of Muscatine), F. H. Reuling, M.D., Waterloo, and F. R. Richmond, Sr., Fort Madison.

MATERNAL & CHILD HEALTH . . . Medicaid requirements pertaining to the diagnosis and treatment of children under 21 were presented by E. M. Smith, M.D., Director, Bureau of Medical Services, State Department of Social Services, to the IMS Committee on Maternal and Child Health May 31. The Committee was also advised of current maternal and child health activities occurring at the State Department of Health.

REPRESENT IOWA . . . Iowa's three delegates to the AMA will represent the state at this month's annual meeting in San Francisco. The delegates are L. W. Swanson, M.D., Mason City, H. J. Smith, M.D., Des Moines, and E. M. Smith, M.D., Des Moines. C. E. Radcliffe, M.D., Iowa City, is the Society's alternate delegate.

20 YEARS' SERVICE . . .



Tina Preftakes was recognized at the Society's Annual Banquet for 20 years of service as a member of the IMS administrative staff. Personable Miss Preftakes is assistant to the executive vice president and has been involved administratively in many important Society activities through her period of service. She has had particular responsibility in areas such as medical education, medical manpower, health care planning and in public relations. She has been active in the planning and presentation of the Hawkeye Science Fair as well as the public education programs offered by the Iowa Health Council. A native of Clarion and a graduate of The U. of I., Tina was presented a desk clock in recognition of her service.

(Continued on page 276)

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Educationally Speaking

by RICHARD M. CAPLAN, M.D.

PYTHAGOREAN THEOREM REVISITED

In the current maelstrom of debate about the "proper length" of medical education, almost everyone has an answer. *What's yours?*

The usual ones are:

a) undergraduate collegiate: 2, 3, or 4 years
b) medical school: 2, 3, or 4 years
c) postgraduate: 1, 2, 3, 4, 5, or 6 years
d) continuing education: 40 hours, 50 hours or 67 hours per year.

The most heated debate, inside and outside academic centers, centers on the length of the medical school curriculum; 3 years versus 4 years seems best to describe the major battle. I am personally impressed that most speakers are attached either to 3 years or 4 years as if these numbers were somehow magical. Pythagoras taught that number was the essence of all things. He mystically associated numbers with virtues, colors and many other ideas. His influence thus seems to live on, in more than just his useful and accurate law of the right triangle, where $a^2 + b^2 = c^2$. This formula applies to medical education, incidentally, if a, b, and c are defined respectively as 3 years undergraduate, 4 years medical school, and 5 years postgraduate. If such number formulas strike you as unrelated to what *really* counts, then you're ahead of a lot of high-powered medical educators, in my opinion.

Well then, what *is* the right length of time? How about the idea that certain knowledge and skills are to be attained, and the *right amount of time is that length of time which it takes an individual to attain that knowledge and skill.* Such an answer would be described educationally as letting achievement be the constant and time the variable, instead of our present system of letting time be the constant and achievement the variable. If you see some practical difficulties in implementing such a system, then you are in the same crowded boat with the rest of us. But maybe we'd somehow better come up with a decent answer before the boat sinks!

If this dilemma vexes you, take comfort from the simple and totally noncontroversial answer to the question of how long a physician's medical education should take. The answer, of course: AS LONG AS HE PRACTICES MEDICINE. And that's what continuing education is all about.

Dr. Caplan is Assistant Dean, Continuing Medical Education, at The University of Iowa College of Medicine.

Continuing Education Courses & Conferences

Please call or write Office of Continuing Medical Education, College of Medicine, for further information on these programs. Telephone 319-353-5763.

June 5-7	American College of Physicians Course
June 5-8	*Intensive Coronary Care Management Course
June 6-8	Small Hospital Microscopy Course
June 16-17	Cancer Teaching Days
June 26-30	Summer Workshop on Alcoholism
July 12-13	1972 Refresher Course for Family Practitioners —"Mini-Version"
July 30-Aug. 3	* Intensive Coronary Care and Management Course

Unless otherwise specified all courses and conferences are held at The U. of I. College of Medicine, Iowa City.

* Enrollment limited. Advance registration necessary.

IOWA MEDICAL MISCELLANY

CONGRATS, GRADUATES . . . Congratulatory letters were sent last month by Society President K. E. Lister, M.D., to the 148 seniors who received medical degrees from The U. of I. on May 26. Dr. Lister offered the services of the Society's Physician Placement Service to any of the graduates any time they wish to make use of it.



SKINNER HONORED . . . Homer Skinner, M.D., Carroll, was honored in May for six years' service as president of the Health Planning Council of Iowa. The HPCI Board said of Dr. Skinner: "His years of dedicated leadership are deeply appreciated by all Iowans who have worked so diligently to develop comprehensive areawide health planning programs in Iowa." Dr. Skinner will continue on the HPCI Board. His successor as president is Wilbur Quinn, a Blue Shield executive. L. J. O'Brien, M.D., Fort Dodge, was elected to the HPCI Board as a Society representative.

GOLF WINNERS . . . J. J. Polich, M.D., Des Moines, won the 1972 IMS Golf Tourney played April 23. There was a three-way tie for second among J. L. Kehoe, M.D., Davenport, C. P. Addison, M.D., Waterloo, and C. P. Hartford, Iowa City. Tournament Chairman H. J. McCoy, M.D., reports a successful event on a cold and windy day. He further reports a small award is available for any authenticated hole-in-one scored by an Iowa physician this year.

HISTORICAL COMMITTEE . . . William Peterson, director of the Iowa State Historical Library, will be the guest of the IMS Historical Committee at a June meeting in Des Moines.

NEW ASSISTANT DEAN . . . Arthur Horsley, M.D., a former Sioux City practitioner, will become an assistant dean at The U. of I. College of Medicine July 1. Dr. Horsley has been an associate professor of community health at the University of Oklahoma Medical Center. Among other responsibilities Dr. Horsley will direct development of the Muscatine Community Health Center project.

DIABETIC CAMP . . . A special week-long camping period for diabetic youngsters will be offered this summer (August 13-20) at the Des Moines YMCA Camp near Boone. The project is called Camp Hertko Hollow in honor of Edward Hertko, M.D., Des Moines, under whose guidance the activity was begun. Information is available from Vivian and Chris Murray, Route 3, Ames 50010.

WATERLOO TV . . . A May 21 television program on sex education over KWWL-TV in Waterloo was developed and presented by the Black Hawk County Medical Society and its Auxiliary. Particular leadership was given to the project by C. D. Ellyson, M.D., Waterloo, chairman, IMS Committee on Health Education.

CONSIDER DELEGATION . . . Representatives of the Society will meet June 7 with officers of the Iowa Nurses' Association and the State Board of Nursing to discuss matters relating to the delegation of authority by physicians to nurses and others.

LOUISIANA STUDY . . . Members of the IMS House of Delegates were told in April by AMA President-elect C. A. "Carl" Hoffman, M.D., that a recently completed eight-year study in Louisiana showed physicians paid $6.8 million in professional liability insurance premiums but only $242,000 were paid out on 63 claims. He used this statistic to illustrate the paucity of information available in this area.

PERINATAL HEALTH CARE . . . Two Iowa physicians serve on the Planning Committee for the Great Plains Organization for Perinatal Health Care, an organization formed in 1970 for physicians and nurses. The Iowa doctor representatives are Herman Hein, M.D., Dubuque, and Roy Pitkin, M.D., Iowa City.

JOURNAL READER SURVEY . . . Informal readership survey of the IMS JOURNAL taken during April Annual Meeting showed 83 per cent of the respondents read the JOURNAL regularly. Scientific articles and personals (About Iowa Physicians) were checked as the items with the most reader appeal.

USE OF FLEX . . . Iowa is one of approximately 40 states now using FLEX—the Federation Licensing Examination. Only eight states were using the examination three years ago; the Iowa State Board of Medical Examiners used it initially in June, 1971. This testing program is a project of The Federation of State Medical Boards.

ACTION UNCERTAIN . . . House-Senate differences and time pressures may well stall federal congressional action this year on the three major health measures before the lawmakers . . . national health insurance, health maintenance organizations (HMO's) and the Social Security Amendments to Medicare and Medicaid. The death knell for national health insurance in this Congress appears to have been rung by House Ways and Means Committee Chairman Wilbur Mills.

VOIGT INSTALLED . . . F. O. W. Voigt, M.D., Oskaloosa, was installed last month as president of the Iowa Heart Association. Dr. Voigt succeeds W. R. Wilson, M.D., Iowa City, and begins a two-year term. The IHA fourth annual delegate assembly occurred May 6 and 7 and attracted 140 persons.

Pathology Capsules

by C. B. PREACHER, M.D.

THE MONOSPOT TEST

The most important aspect of infectious mononucleosis is its diverse symptomatology. Like syphilis, it is a great imitator, and patients who have it may present a clinical picture and hematological pattern which suggests a serious, even fatal disease. A relatively simple and reliable laboratory diagnostic test for this disease is therefore important and desirable.

A classical case of infectious mononucleosis usually presents a clinical picture of temperature elevation, pharyngitis, malaise, and may include headache, excessive sweating and prostration. The pharyngitis may be severe with ulcerative lesions and exudate which may suggest or be confused with diphtheria. Lymphadenopathy, splenomegaly and hepatomegaly may be evident. The disease is self-limited and its chief hazard lies in the complications which may develop.

Rupture of an enlarged spleen is one of the most serious complications, although central nervous system involvement may also be serious. Splenic rupture may occur in infectious mononucleosis cases in which the classical symptomatology is not present. The disease should therefore be considered in cases presenting an acute surgical abdomen. Lymphocytosis occurs in the peripheral blood and the hematologic picture may simulate leukemia.

In 1968, Lee, Davidsohn and Slaby demonstrated, in a group of 50 serums each of infectious mononucleosis cases, that horse erythrocytes were the most sensitive indicator of heterophilic antibodies.[5] They further showed that if the absorption techniques of the differential sheep cell test were applied, the high degree of specificity of the test was enhanced. Using this information, they devised the spot test for infectious mononucleosis.[4]

There is a tendency to conclude, apparently on the basis of name, that the spot test is a shortcut test which provides a quick answer to the diagnosis. Some seem to feel that it is a screening test which requires some other type of confirmation. The test is, in fact, very sensitive and specific.

Reagents used in the test include suspensions of guinea pig kidney and beef erythrocyte antigens. These are mixed in separate spots on a slide with the unknown serum. Horse erythrocytes are added as indicator. The particles of antigen in the suspensions are very finely divided, and they effectively absorb, and thereby inactivate, their respective antibodies without obscuring the phenomenon of agglutination when the horse erythrocytes are added.

The agglutination of horse erythrocytes in the mixture of human serum and guinea pig antigen will be stronger than that in the mixture of human serum and beef erythrocyte antigen if the heterophilic antibodies are caused by infectious mononucleosis. The test will therefore be read as positive. The reverse will be true if the heterophilic antibodies are not infectious mononucleosis antibodies.

In addition to the fact that the sensitivity is enhanced by using horse erythrocytes rather than sheep erythrocytes, the test is far simpler to perform than the differential test utilizing sheep erythrocytes. The suspensions of guinea pig and beef erythrocyte antigens are stable, and the horse erythrocytes used for the test may be stored for longer periods of time than sheep erythrocytes without loss of sensitivity.

Lee *et al* have emphasized that the spot test, like all other laboratory tests, cannot be expected to be 100% accurate.[4] The test must be evaluated in the light of clinical data and hematological findings. In the initial evaluation of the spot test, one serum in 250 positives was considered to be false positive. The test is, therefore, based upon sound immunological principles, and based upon data thus far accumulated, is specific and reliable and usually correlates well with clinical and hematological findings.

(Continued on page 296)

This series of review articles is provided by the Iowa Association of Pathologists. This discussion has been prepared by C. B. Preacher, M.D., who practices pathology in Davenport.

Radiology Window

by DONALD C. YOUNG, M.D.

CASE NO. 3

These films are of a 45-year-old woman with pain in the shoulder. She has experienced difficulty in combing her hair and performing other activities requiring abduction and rotation of the humerus. This occurred after a fall two years ago in which the tip of the shoulder was injured. Therapy has consisted of anti-arthritic medications, steroid injections locally and a course of radiotherapy. There has been little beneficial effect. Interpret these x-ray studies and pick the most likely diagnosis: (1) Bursitis, (2) Shoulder dislocation, (3) Rotator cuft tear, (4) Adhesive capulitis "Frozen" shoulder, or (4) Rheumatoid arthritis.

Please turn to Page 291 for discussion of the films and special radiographic study of the shoulder.

This radiologic feature has been prepared and provided by Donald C. Young, M.D., who is associated with Department of Radiology at Iowa Lutheran Hospital in Des Moines.

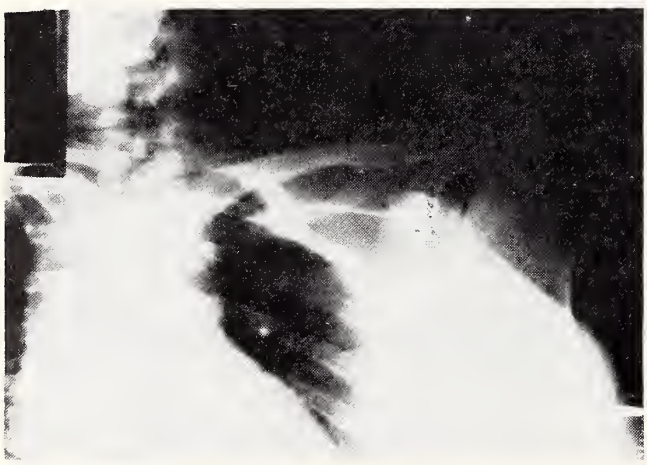


Figure 1. Frontal radiograph.

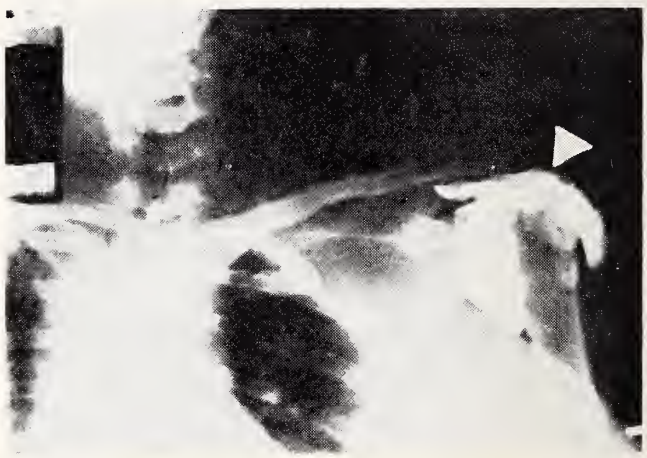


Figure 2. Positive contrast arthrogram.

APPROVE SIX PROJECTS

IRMP ACTIVITIES . . . Six diversified projects were approved May 5 by the Advisory Group of the Iowa Regional Medical Program. Two deal with neonatal care and are based at The U. of I. College of Medicine. A third proposal requests funds ($36,000) to plan a North Central Iowa Health Education Center in Mason City. Approval was also given for a grant ($22,970) to the Atlantic Medical Clinic to establish a satellite clinic in Walnut. Hospitals in Spencer, Emmetsburg, Estherville and Spirit Lake received approval of a request ($29,360) to set up a Lakes Area Confederation of Hospitals. Lastly, approval was given for the funding ($24,850) of the Muscatine Model Health Center. The U. of I. College of Medicine is the grantee.

SCIENTIFIC ARTICLES

Amniotic Fluid Lecithin/Sphingomyelin Ratio As a Measure of Fetal Pulmonary Maturity

CHARLES A. WHITE, M.D.,
THEODORE S. MUSIALA, Ph.D., and
DAVID L. WITTE, Ph.D.
Iowa City

THE TRADITIONAL but not always reliable retrospective criteria of (1) menstrual history, (2) first detection of fetal movement and fetal heartbeat, and (3) rate of growth of uterine size are the parameters which determine the duration of gestation and probable fetal maturity. These measures have begged additional techniques for improved accuracy. This has been particularly pressing in the management of those high risk obstetrical patients who require preterm delivery by induction or Cesarean section. Estimation of fetal weight by abdominal palpation often produces discrepancies of several hundred grams either greater or lesser than the actual fetal weight. Radiologic examination for presence of fetal proximal tibial and/or distal femoral epiphyses has been complemented, in some facilities, by the use of ultrasound determinations for measurement of fetal biparietal diameter as a gauge of fetal size and maturity.

However, since the acceptance of transabdominal amniocentesis for analysis of amniotic fluid (AF) in the determination of severity of fetal erythroblastosis, additional benefits have been found from the investigation of creatinine, and bilirubin content and cellular components of AF in the appraisal of fetal maturity.[1-7] Recent experience has shown the AF creatinine content to have given the most consistent help. Regrettably, even with the assistance of the preceding studies, there is still no assurance an infant judged to be mature by these criteria will necessarily have achieved optimal pulmonary maturity. As a result, preterm delivery of such high risk infants often has been followed by development of respiratory distress syndrome (RDS) or hyaline membrane disease (HMD). Encouraging data was reported in 1971 by Gluck[8] and co-workers. This research concerned changes in AF phospholipids and offers promise in the determination of fetal and newborn adequate pulmonary function by an increase in lecithin concentration after 35 weeks of gestation.

The purpose of the project reported here was to study the reliability and clinical usefulness of the AF lecithin/sphingomyelin (L/S) ratio in determining the pulmonary maturity of the

The authors are associated with the Departments of Obstetrics and Gynecology, Biochemistry and Pathology at The University of Iowa College of Medicine.

THE SCANLON MEDICAL FOUNDATION/IOWA MEDICAL SOCIETY HAS DESIGNATED THIS ARTICLE AS THE HENRY ALBERT SCIENTIFIC PRESENTATION FOR THE MONTH OF JUNE, 1972.

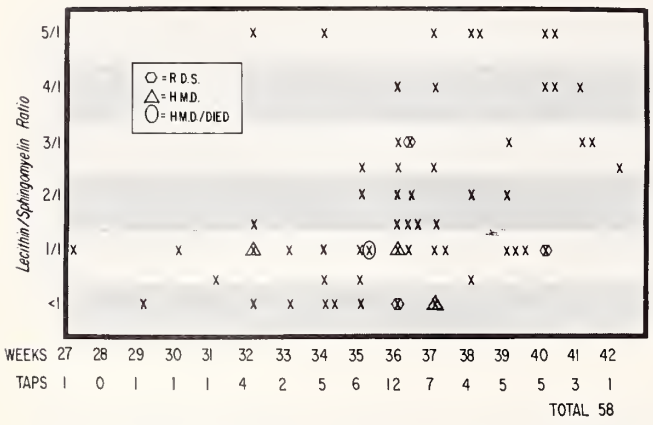


Figure 1. The L/S ratios from 58 AF samples obtained between 27 and 42 weeks of gestation from the first series of patients in this study. Seven infants developed either RDS or HMD; one died.

fetus and neonate. In addition, the L/S ratios would be compared to AF analyses of creatinine, bilirubin and cellular cytologic examination as well as to fetal biparietal diameter as determined by ultrasound and the presence of fetal distal femoral epiphyses from x-ray examination.

MATERIALS AND METHODS

Fetal maturity studies from two series of patients are included in this report. In the first series 40 obstetrical patients underwent a total of 58 amniocenteses from as early as 27 weeks to as late as 42 weeks of gestation; 27 of the patients had a single amniocentesis and the other 13 had two or more amniocenteses for a total of 31. The 58 determinations of L/S ratios in the first series were done from March through August in 1971 by one of the authors (TSM) strictly in accordance with the technique of thin-layer chromatography described by Gluck.

The second series involved 14 other patients who underwent 15 amniocenteses from September through December, 1971. These L/S ratios were carried out by another of the authors (DLW) with a modification of Gluck's technique which appeared to offer many advantages.

In the course of altering Gluck's technique, several extraction procedures were evaluated. The methanol 1-chlorobutane extraction described here appeared to be the most expedient and effective. Recovery experiments revealed no bias toward lecithin or sphingomyelin. Eastman 6061 thin-layer plates allowed a three-fold increase in Rf and, therefore, most improved separation. The spray of Dittmer and Lester[9] was necessary since the Eastman plate cannot be heated. Quantitative standards are needed since lecithin and sphingomyelin do not yield the same color intensity.

The following steps were utilized in this modified technique.

1. Spin sample of 15-20 ml amniotic fluid to remove cells and debris.
2. Add one sample volume of methanol to denature proteins and wait 3-4 minutes.
3. Add one sample volume of 1-chlorobutane, mix well and centrifuge for 15 minutes to separate the phases, then collect the upper 1-chlorobutane layer.
4. Repeat the above extraction by adding one volume of 1-chlorobutane.
5. Evaporate the 1-chlorobutane to a small volume.
6. Apply the entire sample on an Eastman 6061 TLC plate. Also apply quantitative standards.

For a 1/1 ratio—3 μl each of 25 mg/ml lecithin and sphingomyelin

For a 3/1 ratio—9 μl of lecithin and 3 μl of sphingomyelin

7. Develop until nearly to the top with chloroform/methanol/water (65/25/4) made fresh each day.
8. Dry plate and spray.
9. Estimate ratio by using size and intensity of the spots, which appear bright blue on a white background.

Preparation of the spray as outlined by Dittmer and Lester is as follows.

SOLUTION I. Add 40.11 gms of MoO_3 to 1 liter of 25N H_2SO_4 and boil gently until the MoO_3 is dissolved.

SOLUTION II. Add 1.78 gms of powdered molybdenum to 500 ml of Solution I and boil the mixture gently for 15 minutes. The solution is cooled and decanted from any residue that may be present.

THE SPRAY. One volume each of Solutions I and II are mixed and two volumes of water added. The final solution is greenish yellow. If too little water is added it is blue, or if too much, it is yellow. The spray is stable for months.

Chromatographically pure standards are available from Supelco, Inc., Bellephone, Pa. 16283.

The AF creatinine and bilirubin contents and the percentage of orange cells following staining by Nile Blue sulfate technique were determined as previously described by this department.[1] The fetal biparietal diameter measurement was determined by commercially available B scan ultrasound technique consisting of a synchronized manual scanner with a 2 MHz transducer.

RESULTS

Figure 1 illustrates the L/S ratio according to the technique of Gluck compared to the week of gestation for all 58 amniocenteses from the first series of patients. Also, those infants who developed either respiratory distress syndrome or hyaline membrane disease are identified. Note one infant whose L/S ratio was 1/1 at 35 weeks of gestation was a neonatal death from HMD when delivered 7 days later. Discussion of all cases of RDS and HMD is provided later.

Table I summarizes the results of those 27 patients of the first series who underwent a single amniocentesis. When available, results of other AF studies, as well as fetal biparietal diameter and presence of distal femoral epiphyses, are noted for supplementary value. The birth weight is also provided as are the number of days from the amniocentesis until delivery. The occurrence of RDS or HMD is also indicated. All patients were delivered vaginally except those identified under "complications." Those

TABLE I

FIRST SERIES
SINGLE AMNIOCENTESIS GROUP (27)

Pt. #	COMPLICATIONS	WEEKS' GESTATION	L/S RATIO	AMN. FLUID CREATININE	ΔOD 450 BILIRUBIN	% ORANGE CELLS	BIPARIETAL DIAMETER	DISTAL FEM. EPIPHYSES	DAYS TO DELIVERY	BIRTH WEIGHT	RESPIRATORY DISTRESS?
1	None	42	2½/1	4.4 mgm.%	-	>50	9.3 cm.	-	3	3920 gm.	No
2	Chronic Hypertension	41	3	2.6	0.003	10-15	8.5	No	5	3350	No
3	None	41	3	2.8	0.030	30-40	8.6	-	17	3160	No
4	Prior Section	40	5	3.0	0.030	>50	8.5	-	2	3070	No**
5	Toxemia	40	5	2.2	-	>50	-	-	1	3810	No
6	None	40	4	2.6	0.025	-	-	-	8	3400	No
7	Rh Sensitization	40	4	2.2	sensitized	<5	9.4	-	1	3280	No
8	Prior Section	40	1	2.2	0.026	<10	9.0	-	2	2760	R.D.S.**
9	Rh Sensitization	39	1	2.6	sensitized	>50	9.0	Yes	1	3140	No
10	Prior Section	39	1	2.6	0.000	30-50	8.6	No	8	2880	No**
11	Prior Section	39	1	3.0	0.006	10-15	8.5	No	4	2910	No**
12	None	39	3	3.4	0.000	>50	-	-	2	3190	No
13	Prior Section	38	5	2.3	0.000	-	8.8	-	10	2860	No**
14	Prior Section	38	2	2.2	0.010	>50	-	-	3	2910	No**
15	Rh Sensitization	37	4	1.7	sensitized	-	-	-	6	3360	No
16	None	37	2½	2.6	0.012	<5	9.0	-	7	3070	No
17	Rh Sensitization	36	4	2.2	sensitized	-	-	-	30	4140	No
18	Chronic Renal Dis.	36	3	4.4	0.032	10	9.2	-	10	1920	No
19	Diabetes	36	3	2.6	0.016	5	8.5	No	8	2930	R.D.S.
20	Prior Section	36	2	2.4	-	<10	8.7	No	15	3200	No**
21	Diabetes	36	2	-	-	-	9.2	No	1	3720	No
22	Growth Retardation	36	1	-	-	-	-	No	1	1920	H.M.D.*
23	Rh Sensitization	35	2½	2.2	sensitized	-	-	-	21	3000	No
24	Rh Sensitization	35	2	2.3	sensitized	10-15	-	-	15	1590	No*
25	Diabetes & Prior Section	35	1	2.2	0.069	0	7.8	No	7	1800	H.M.D.**-DIED
26	Diabetes	34	<1	2.6	0.034	-	8.4	No	12	2910	No
27	Rh Sensitization	32	1	1.7	sensitized	-	-	-	19	2630	H.M.D.*

*Primary Cesarean
**Repeat Cesarean

having had prior Cesarean section were delivered by *repeat* Cesarean section while patients No. 22, No. 24, and No. 27 were delivered by *primary* Cesarean section. The infant from patient No. 25 was the only death from this group.

Table II similarly summarizes those 13 patients from the first series who underwent 2 or more aminocenteses (for a total of 31). Those 3 patients identified as having prior Cesarean section were delivered by repeat Cesarean section; all others were delivered vaginally. There were no primary Cesarean sections in this group. All 13 infants survived.

Thirteen additional patients comprised the second series and their data are maintained separately in Table III because of the different technique of phospholipid determinations. The 4 patients identified as having a prior Cesarean section were delivered by repeat Cesarean section and patient No. 14 was delivered by primary Cesarean section; all others were delivered vaginally. Patients No. 10 and No. 13 had antepartal fetal deaths and the infant of patient No. 14 developed RDS and died.

DISCUSSION

It becomes apparent from a perusal of Figure 1 that of the 15 amniocenteses done *prior* to the 35th week of gestation, 13 samples had a L/S ratio of less than 2/1 as expected from Gluck's data. But surprisingly, two ratios during the 32nd and 34th week showed high values of 5/1. Both of these latter samples were obtained from patient No. 12 in Table II; twins weighing 3120 gms and 2660 gms were delivered after spontaneous onset of labor 18 days following the second tap and neither baby showed evidence of RDS. The infant with a L/S ratio of 1/1 at 32 weeks who developed

TABLE II

MULTIPLE AMNIOCENTESIS GROUP II
(13 WITH 31 TAPS)

Pt. #	COMPLICATIONS	WEEKS' GESTATION	L/S RATIO	AMN. FLUID CREATININE	ΔOD 450 BILIRUBIN	% ORANGE CELLS	BIPARIETAL DIAMETER	DISTAL FEM. EPIPHYSES	DAYS TO DELIVERY	BIRTH WEIGHT	RESPIRATORY DISTRESS?
1	Toxemia	41	4 /1	-	-	-	-	-	0	3360 gm.	No
		38	<1	3.0 mgm.%	-	-	-	-			
2	Prior Section	39	2	-	-	-	-	-	0	3460	No**
		37	1½	2.8	0.041	2	9.3 cm.	-			
		36	1½	2.6	0.054	5-10	8.7	-			
3	Diabetes	38	5	3.2	0.008	-	-	-	2	3070	No
		37	1	2.8	0.006	-	9.0	-			
		36	1½	3.0	0.026	-	-	-			
4	Rh Sensitization	37	5	2.6	sensitized	1	8.5	No	1	2740	No
		35	1	2.2	sensitized	-		-			
		32	1½	2.2	sensitized	-		-			
5	Rh Sensitization	37	1½	2.2	sensitized	-	9.4	-	14	3980	No
		34	<1	2.2	sensitized	-		-			
		31	<1	2.0	sensitized	-		-			
6	Diabetes	37	<1	2.2	0.012	<10	8.5	No	1	2530	H.M.D.
		36	2½	-	0.010	Rare	8.5	No			
7	Prior Section	36	<1	1.6	0.100	20	9.0	-	2	2660	R.D.S.**
		33	1	1.7	0.110	5	8.6	-			
8	Prior Section	36	1½	2.2	0.021	<1	-	-	16	2720	No**
		35	<1	2.4	0.028	<5	8.7	-			
9	Rh Sensitization	36	1	2.8	sensitized	-	-	-	1	2460	No
		34	1	2.2	sensitized	-	-	-			
10	None	35	<1	2.4	0.015	10-20	8.5	Yes	33	2870	No
		33	<1	2.6	0.029	10	8.3	-			
11	Rh Sensitization	34	<1	2.0	sensitized	5-10	-	-	23	3200	No
		32	<1	1.9	sensitized	<10	-	-			
12	Rh Sensitization	34	5	2.2	sensitized	<5	-	-	18	3120) 2660)	No
		32	5	2.2	sensitized	0	-	-			
		29	<1	1.4	sensitized	0	-	-			
13	Rh Sensitization	30	1	1.9	sensitized	-	-	-	48	3430	No
		27	1	1.4	sensitized	-	-	-			

**Repeat Cesarean

TABLE III

SECOND SERIES
14 PATIENTS WITH 15 AMNIOCENTESES

Pt. #	COMPLI-CATIONS	WEEKS' GESTATION	L/S RATIO	AMN. FLUID CREATININE	ΔOD 450 BILIRUBIN	% ORANGE CELLS	BIPARIETAL DIAMETER	DISTAL FEM. EPIPHYSES	DAYS TO DELIVERY	BIRTH WEIGHT	RESPIRATORY DISTRESS?
1	Toxemia	40	>4 /1	-	-	>50	9.0 cm.	-	10	3650 gm.	No
2	Prior Section	39	4	1.9 mgm.%	0.029	10	-	-	5	2820	No**
3	None	39	4	2.4	-	>50	8.3	-	1	3100	No
4	Prior Section	38	3	2.2	0.023	10-15	8.5	-	2	2850	No**
5	None	37	4	2.4	0.019	20	8.3	-	17	2730	No
6	Prior Section	37	2	2.4	0.030	<1	8.7	-	4	3000	No**
7	Rh Sensi-tization	36	2½	1.9	sensitized	-	-	-	14	2980	No
8	None	36	4	2.0	0.018	5-10	-	-	20	3210	No
9	Diabetes	36	>4	2.0	-	10-20	9.0	-	14	3710	No
10	Diabetes	35	4	1.7	0.040	<5	9.0	-	11	3090	Stillborn
11	Rh Sensi-tization	35	>4	2.2	sensitized	-	-	-	33	3800	No
12	Rh Sensi-tization & Prior Section	35 34	>4 >4	2.0 2.2	sensitized sensitized	- -	- -	- -	13 20	2720	No**
13	Rh Sensi-tization	32	3	1.8	sensitized	-	-	-	17	2300	Stillborn
14	Toxemia	31	2	-	-	-	7.6	-	1	1680	R.D.S.*-DIED

*Primary Cesarean
**Repeat Cesarean

HMD is identified with patient No. 25 in Table I and was delivered by primary Cesarean section 19 days after the amniocentesis.

It was gratifying to note that of the 24 samples obtained after 35 weeks which had a ratio of greater than 2/1, only 1 was associated with RDS; patient No. 19 in Table I was induced 8 days following amniocentesis because of maternal diabetes mellitus and her 2930 gm infant had only mild RDS.

But, of the 43 values after 35 weeks of gestation or more, it was noted with concern that 19 (44%) were less than a 2/1 ratio. Three of those infants developed HMD, one of these succumbed while two others had RDS but survived. The infant that succumbed is identified with patient No. 25 in Table I; the mother had diabetes mellitus and prior Cesarean sections and 7 days following the amniocentesis had a repeat Cesarean section. Her 1800 gm infant promptly developed severe HMD. The two infants surviving HMD are identified with patient No. 22 of Table I and patient No. 6 from Table II. Those infants who developed RDS are from patients No. 8 in Table I and No. 7 in Table II; each was delivered by repeat Cesarean section.

Although the data on the 14 patients in the second series are summarized in Table III, they have not been included in Figure 1. In general, their L/S determinations reflect favorable ratios of at least 2/1—even those three samples from less than 35 weeks of gestation. Only one infant —that from patient No. 14 who had severe pre-eclampsia—developed RDS and succumbed but permission for autopsy could not be obtained to determine the precise cause of death. Patients No. 10 and No. 13 had antepartal fetal deaths associated with diabetes in one mother and severe Rh iso-sensitization in the other.

Fortunately, all of the samples in this study were obtained without gross contamination by blood at the time of amniocentesis. However, such contamination could be a critical problem since the plasma phospholipid concentration is 280 mg/100 ml and AF has about 20 mg/100 ml, depending upon fetal maturity. This can be further complicated by the fact that L/S ratio in plasma is approximately 4/1; therefore any severe contamination with plasma will cause the results to predict fetal pulmonary maturity. Since samples are always centrifuged prior to analysis, the packed RBC volume in the amniotic fluid can be estimated, and then from knowledge of the hematocrit the contamination can be calculated. As an example, if 10 ml of AF is contaminated with 0.15 ml of packed RBC and assuming a maternal hematocrit of 45%, we could calculate the following errors: If the actual L/S ratios in AF were 1, 2, 3, 4 and 5/1, the respective observed L/S ratios with contamination would be 1.40, 2.25, 3.10, 4.00 and 4.80/1. Of course, any contamination

more severe than this would cause problems in low L/S ratio samples.

CONCLUSIONS

From the first series of patients, there was initial chagrin over the 19 values (44%) of the total 43 samples from 35 weeks of gestation or more in which the L/S ratio was less than 2/1. Admittedly, 5 of the total 7 cases of RDS or HMD in the first series occurred among these 19 patients, but the other 14 low ratios appeared initially to detract from the overall value of the analysis. However, closer scrutiny of the case histories of these 14 low ratios seems to remove much of the apparently unjustified and premature castigation, inasmuch as only two infants were delivered within one week of the amniocenteses that provided this ratio of less than 2/1; they were from patients No. 9 and No. 11 of Table I. All other infants associated with these less than 2/1 ratios after 35 weeks were delivered from 8 to 33 days later, and *may* have exhibited pulmonary immaturity had they been born sooner.

In the second series, all the ratios were 2/1 or greater, even those three samples from under 35 weeks of gestation. Perhaps the improved laboratory technique for detection of lecithin and sphingomyelin accounted for the apparently higher ratios. Since one infant (patient No. 14 from Table III) had RDS and was delivered one day after amniocentesis that gave a 2/1 ratio, we may predict a more favorable neonatal course if the L/S ratio is at least 2½ or 3/1. Obviously, more experience is needed with the modified procedure currently being employed at our institution. Of course, before any clinical decision should be made from L/S ratio data, each laboratory's results should be similarly scrutinized and minimal ratios established for predicting probable pulmonary maturity.

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USE GENEVA OATH WITH MODIFICATION

A slightly modified version of the Declaration of Geneva was recited last month by the 1972 graduates of The U. of I. College of Medicine. The Iowa medical graduates reviewed several oaths and selected one adopted by the World Health Association in 1948.

The students altered one phrase. The passage which reads "I will maintain the utmost respect for human life, from the time of conception" was modified to leave out the phrase "from the time of conception." This was done to permit those with varying views on this subject to hold those views and still subscribe to the Oath.

An AMA survey last year indicated 17% of the medical schools used the traditional Hippocratic Oath, another 29% used a modified version, 24% employed the Geneva Declaration and 30% used oaths classified as "other."

The modified Declaration of Geneva (Physician's Oath) appears here.

DECLARATION OF GENEVA

At the time of being admitted as Member of the Medical Profession
I solemnly pledge myself to consecrate my life to the service of humanity.
I will give to my teachers the respect and gratitude which is their due;
I will practice my profession with conscience and dignity;
The health of my patient will be my first consideration;
I will respect the secrets which are confided in me;
I will maintain by all the means in my power, the honor and the noble traditions of the medical profession;
My colleagues will be my brothers;
I will not permit considerations of religion, nationality, race, party politics or social standing to intervene between my duty and my patient;
I will maintain the utmost respect for human life, even under threat, I will not use my medical knowledge contrary to the laws of humanity.
I make these promises solemnly, freely and upon my honor.

Treatment of Polyps of Colon and Rectum

IVAN E. BROWN, M.D.
Hartley

"Adenomatous polyps of the colon and rectum are common benign neoplasms which are usually asymptomatic but may cause painless rectal bleeding. They may be single or multiple, occur most frequently in the sigmoid and rectum, and are found in about 9 per cent of autopsies. The incidence of polyps increases with age. The diagnosis is established by sigmoidoscopy and double contrast barium enema. When a polyp is found in the rectum, the colon should be studied by x-ray.

"Whether polyps are precancerous is an important question. Pedunculated, adenomatous polyps probably have negligible malignant potential and may usually be treated by simple polypectomy. Papillary (villous) adenomas are sessile lesions which are known to become metastasizing carcinoma and should be removed by conservative local resection. The overwhelming majority of cancers of the colon and rectum arise as cancer de novo.

"Familial intestinal polyposis is a rare hereditary disease characterized by innumerable adenomatous polyps of the colon and rectum. Cancer frequently develops in the large bowel, sometimes at a very early age. Colectomy with ileoproctostomy is a treatment of choice and may be followed by spontaneous regression of the rectal polyps. The rectum should be examined regularly and residual polyps removed through the sigmoidoscope. If this is not possible, the rectum should also be excised."[1]

A new method of treating polyps within reach of a sigmoidoscope has been developed.

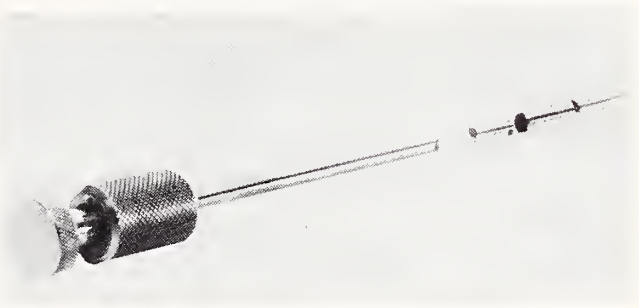


Figure 1. Polyp clamp attached to handle.

The Brown Polyp Clamp is a detachable clamp that is used to clamp the polyp at its base. The clamp is a positive action clamp that will not let loose until necrosis and thrombosis have taken place.

This clamp has been used on 4 patients in my practice (ages 14, 16, 64 and 75). In each instance the only complaint was painless rectal bleeding. The diagnosis was established by sigmoidoscopy and a double contrast barium enema was done to seek out any other polyps higher up in the colon. The polyps ranged in size from 1 to 1½ cm and in two of the cases

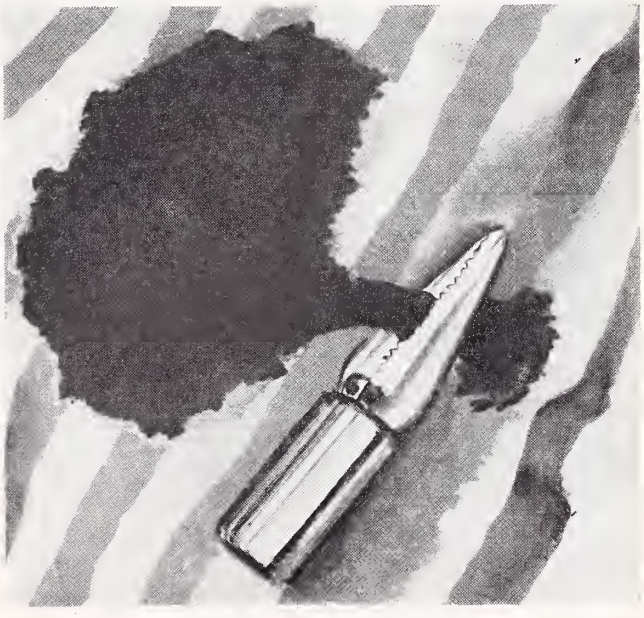


Figure 2. Clamp in place on polyp.

Dr. Brown is in the private practice of general medicine and surgery in Hartley. This report was presented in April at the Annual Congress and Teaching Seminar of the International Academy of Proctology in San Diego.

the stalk was estimated to be 4 mm in diameter and approximately 2 cm long. The other two had very short stalks and estimated at 6 mm in diameter. The polyps were found to be from 8 to 17 cm from the rectum. In each instance the detachable clamp was placed at the base of the polyp. A biopsy was taken and each was found to be benign. The patients were instructed to stay on a soft diet and to take mineral oil, ½ oz, morning and night. They were allowed to go about their usual work and in each instance the clamp was passed on the third day. None of the patients experienced pain or discomfort and there was no bleeding. Each patient has been examined one year after the removal of the polyps and no evidence was found of any re-growth or scarring.

The advantages of the detachable clamp are basically fourfold: 1) Perforation is unlikely; 2) Bleeding is unlikely; 3) Application is quick and easy, and 4) The Procedure is inexpensive.

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TELEVISION PROGRAM RATED 'AMONG THE TOP'

A two-and-a-half hour Cancer Tele-a-thon presented by the Woodbury Medical Society over KCAU-TV (Channel 9) in Sioux City on April 4 has been ranked "among the top" by station officials in terms of reception, interest and viewing audience. Messages of approval were received from all over the station's four-state viewing area.



TELEPHONE MONITORS—Physicians taking questions via phone included, left to right, G. E. Hill, D. M. Youngblade and P. A. Fee.

The educational program began at 10:40 p.m. following the night news and was introduced by Bill Turner, KCAU-TV executive vice president. The telecast continued on the air until 1:15 a.m. and over 400 calls were received before it became necessary to close the switchboard.

George G. Spellman, M.D., Woodbury Medical Society president, was program moderator. The following physicians were panelists: H. J. Caes, S. W. Leafstedt, L. W. Van Voorhis, C. M. Marriott, G. J. McGowan, P. J. Monnig, W. L. Jackson, E. L. Van Bramer and R. J. Barry.

Physicians who served as telephone monitors were W. S. Thoman, H. E. Rudersdorf, D. M. Youngblade, G. E. Hill, P. A. Fee and R. C. Mugan.

The project was coordinated by the public relations committee of the Woodbury Medical Society, which is chaired by R. C. Mugan, M.D.



PHYSICIAN PANELISTS—Appearing on special Sioux City cancer telecast were, left to right, R. J. Barry, S. W. Leafstedt, W. L. Van Voorhis, C. M. Marriott, E. L. Van Bramer, G. G. Spellman, P. J. Monnig, W. L. Jackson, G. J. McGowan and H. J. Caes

Torsion of the Gallbladder: Case Report

HERBERT H. KERSTEN, M.D., F.A.C.S.
Fort Dodge

Torsion of the gallbladder is an uncommon surgical emergency which usually presents with symptoms and findings suggestive of acute cholecystitis. The first case was reported by Wendel in 1898. Since then approximately 200 cases have been reported in the world surgical literature.

REPORT OF A PATIENT

An 83-year-old widow of slight body build, and suffering from mild Parkinsonism, was admitted to the hospital with a 24-hour history of upper abdominal pain associated with vomiting. There was marked tenderness over the gallbladder. There was slight leukocytosis. There was much muscle guarding. No masses could be palpated. It was felt the patient suffered from acute cholecystitis. Surgery was advised, but was declined by the patient. The following day her condition worsened. The patient then accepted surgery. At operation through a subcostal incision the patient was found to have a 360 degree torsion of the gallbladder on a pedicle which contained the cystic artery and cystic duct. The gallbladder was necrotic. Cholecystectomy and appendectomy were carried out without difficulty. The common duct was not involved in the process. Drains were placed in the right subphrenic space and right subhepatic space.

The patient's postoperative course was complicated by progressive respiratory insufficiency, partially related to her Parkinsonism. Despite intensive care, including a tracheostomy one week following surgery, her condition continued to deteriorate. She died 18 days following surgery, primarily of pulmonary complications. The abdominal incision healed satisfactorily. It was of interest that she had undergone gastric resection for a duodenal ulcer 18 years previously. X-rays of the gallbladder five months before her death were reported as "normal." The patient had experienced minor indigestion prior to these x-ray studies.

Torsion of the gallbladder is more common in elderly women, usually over the age of 70. Occasional cases have occurred in younger patients, including children. In approximately four per cent of human beings the mesentery of the gallbladder is well formed. In extreme cases this will permit torsion of the gallbladder of 180 to 360 degrees. The resulting twist occludes the cystic artery, causing complete gangrene of the gallbladder. If they are treated within the first 24 hours these patients generally do well. In occasional cases torsion may involve the common bile duct as well as the cystic duct. It is therefore doubly important that the junction of the ducts be visualized before removing the gallbladder. In some reported cases, as in this one, patients have presented intermittent symptoms prior to the final episode of complete torsion. In such cases, cholecystectomy should be considered if x-ray studies indicate a ptotic gallbladder.

SUMMARY

A case of acute torsion of the gallbladder associated with a long mesocysticum is reported. It is emphasized that torsion of the gallbladder may present as acute cholecystitis. Early surgical intervention is mandatory.

BIBLIOGRAPHY

A bibliography on this subject has been prepared by the author and is available on request from either the author or the JOURNAL OF THE IOWA MEDICAL SOCIETY.

Dr. Kersten is in the private practice of surgery in Fort Dodge.

Newer Diagnostic Tests to Evaluate The Hypothalamic Pituitary Adrenal Axis

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DARYL K. GRANNER, M.D.,
JOSEPH D. BROWN, M.D., and
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Iowa City

MANY OF THE INITIAL signs and symptoms of Cushing's syndrome—obesity, irregular menses, muscle weakness, fatigue, easy bruisability, hirsuitism, hypertension and impaired glucose tolerance—are non-specific and encountered in a considerable number of patients who do not have this condition. Therefore, the clinician must rely on laboratory tests to confirm or exclude the diagnosis. Likewise, in patients with primary and secondary adrenocortical insufficiency the clinical manifestations are often subtle and alone are not sufficient to establish the diagnosis.

In the past, laboratory investigations to confirm these diagnoses involved the repeated collection of 24-hour urine specimens for the estimation of urinary corticosteroid excretion prior to and following attempts to either stimulate or suppress adrenal function. Of necessity this usually required that the patient be hospitalized to ensure carefully timed urine collections and for the administration of agents in the testing procedures. This was both expensive and time consuming. Frequently the results were equivocal and the tests needed to be repeated. The development of specific and precise methods for measurement of plasma corticosteroids has led to the introduction of simplified, reliable screening procedures for assessing hypothalamic-pituitary-adrenal function.

The authors are associated with the Division of Endocrinology, Department of Internal Medicine, U. of I. College of Medicine.

The purpose of this report is to describe two of these rapid screening tests: (1) the overnight dexamethasone suppression test for evaluating patients suspected of adrenal hyperactivity, and (2) the single-dose metyrapone test, a test of hypothalamic-pituitary-adrenal reserve.

OVERNIGHT DEXAMETHASONE SUPPRESSION TEST

Cushing's syndrome encompasses a variety of clinical manifestations induced by increased circulating levels of corticosteroids, principally cortisol. It may be caused by either hyperplasia, a unilateral adenoma or carcinoma of the adrenal cortex or an adrenocorticotropin (ACTH) producing extra-adrenal tumor, particularly oat cell carcinoma of the lung.

The hypothalamic-pituitary-adrenal axis in the normal and as exists during Cushing's syndrome of various etiologies is shown schematically in Figure 1. The hypothalamus regulates the secretion of ACTH by the anterior pituitary through the elaboration of a hypothalamic hormone or releasing factor termed corticotropin-releasing factor (CRF). CRF is carried via the hypophysial portal vessels to the anterior pituitary where it stimulates both the production and release of ACTH. The resultant increase in circulating cortisol from the adrenals in turn exerts a feedback inhibitory effect on further ACTH secretion by blocking the release of CRF. In patients with Cushing's syndrome the normal regulatory mechanism for maintaining plasma cortisol is disrupted. In bilateral adrenal hyperplasia (Cushing's disease) there is a decrease in sensitivity of the hypothalamic center controlling CRF to the inhibitory effect of circulating cortisol. This leads to a persistently elevated ACTH secretion characteristic of Cushing's disease. ACTH produced by non-endocrine tumors (e.g., oat cell carcinoma of the lung) is not

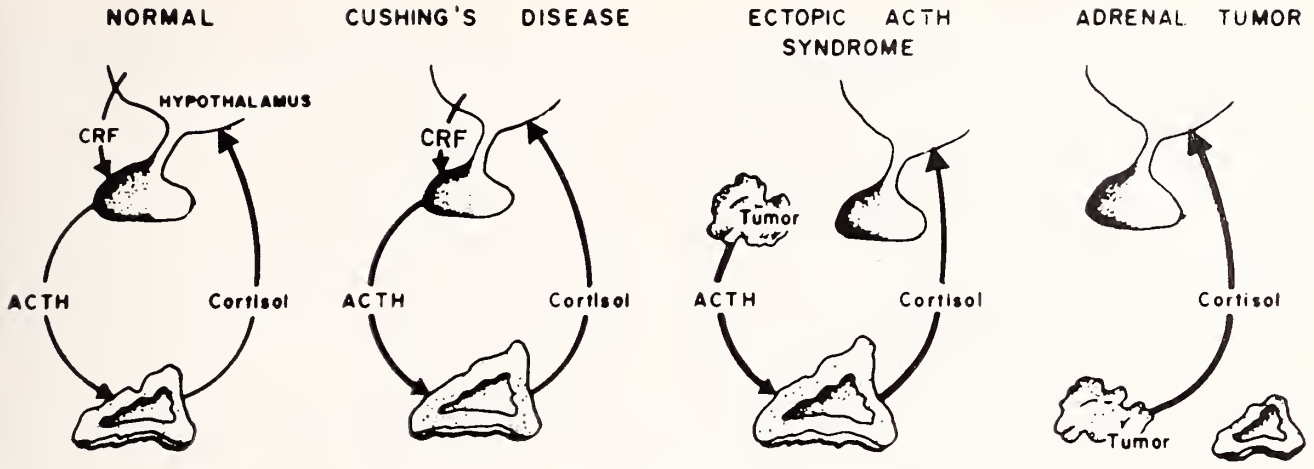


Figure 1

regulated by cortisol. Likewise, adrenal tumors are autonomous.

Dexamethasone, a synthetic corticosteroid, suppresses the adrenal secretion of cortisol in normal individuals by inhibiting ACTH release. Liddle[1] initially introduced a test for separating normals from patients with Cushing's syndrome based on the failure of dexamethasone to suppress urinary corticosteroids in the latter. A much simplified version of this test has since been developed.[2, 3] A single oral dose of 1.0 mg of dexamethasone is given between 11 PM and midnight and the following morning at 8 AM a blood specimen is obtained for measurement of plasma cortisol.

In a six-month period beginning July, 1970 the overnight dexamethasone test was performed 48 times in 45 patients with and without Cushing's syndrome (Figure 2). The control group was composed of patients with a variety of endocrine and non-endocrine disorders including acromegaly, hypothyroidism, exogenous obesity, Stein-Leventhal syndrome, idiopathic hirsuitism, diabetes mellitus and essential hypertension. Excluded from the control group were patients with primary or secondary adrenal insufficiency and those who were acutely ill. The 8 AM plasma cortisol level following 1.0 mg dexamethasone was suppressed to less than 5 μg/100 ml in 40 of 41 patients without Cushing's syndrome. In 37 of these cases the plasma cortisol was suppressed to less than 2.0 μg/100 ml, the lowest level distinguishable in the assay system. In one obese, hirsute female without any other stigmata of Cushing's syndrome the 8 AM plasma cortisol after dexamethasone was 10.6 μg/100 ml. When repeated the plasma cortisol suppressed to less than 2.0 μg/100 ml. Emotional stress, sleeplessness or failure to take the dexamethasone are possible explanations for the lack of suppression in the initial test.

In patients with Cushing's syndrome 1.0 mg of dexamethasone at midnight failed to suppress the 8 AM plasma cortisol normally. The values ranged between 6.5 and 27.1 μg/100 ml. In five of six tests the 8 AM cortisol remained greater than 10 μg/100 ml (11.8-27.1). The one patient with Cushing's syndrome whose plasma cortisol after dexamethasone was 6.5 μg/100 ml warrants additional comment. This patient continued to exhibit stigmata of excessive adrenocortical activity following bilateral adrenalectomy which had been carried out one year prior to performance of the test. The presence of measureable amounts of plasma cortisol postoperatively indicated that residual adrenocortical tissue remained. Although there was some initial improvement following surgery, weakness, easy bruisability, striae, impaired glucose tolerance and centripetal obesity persisted and subsequently worsened. The failure of the plasma cortisol to be suppressed confirmed the clinical impression of continuing adrenocortical hyperactivity. The relatively low level of plasma cortisol in this patient with Cushing's disease very likely indicates that the majority of hyperplastic adrenocortical tissue was removed at surgery. Ectopic adrenocortical tissue may be present in this patient.

Our results agree with previous reports on

the value of the overnight dexamethasone test in the diagnosis of Cushing's syndrome.[2, 3] False positive tests may occur in patients taking estrogens which cause an increase in cortisol-binding globulin and in those who are acutely ill or with extreme emotional stress. More importantly, false negatives have not been demonstrated.

SINGLE-DOSE METYRAPONE TEST

During this same period a simplified single dose metyrapone test with plasma 11-deoxycortisol level as end point has been employed as a test of hypothalamic-pituitary-adrenal reserve.

In adults, secondary adrenocortical insufficiency is most commonly caused by destruction of the pituitary by a tumor or by infarction. Less commonly infectious and non-infectious granulomas, hemochromatosis, or an aneurysm of the internal carotid artery may be the cause. ACTH release is also impaired in patients receiving corticosteroids and this impairment may persist for months after withdrawal of the corticosteroids. Frequently such patients with compromised hypothalamic-pituitary function have normal basal levels of plasma and urinary 17-hydroxysteroids and evidence of ACTH deficiency only becomes clinically apparent during an intercurrent illness or surgical procedure. It is extremely important, therefore, to identify patients with secondary adrenocortical insufficiency so that corticosteroid therapy is instituted and the dose adjusted appropriately during periods of stress.

In 1959 Liddle first reported on the usefulness of metyrapone as a means of assessing ACTH secretory reserve.[4] Metyrapone, an 11 β-hydroxylase inhibitor, blocks the last step in cortisol synthesis, the conversion of 11-deoxycortisol to cortisol. In normal individuals the resultant reduction of plasma cortisol levels causes an increase in the pituitary secretion of ACTH which in turn stimulates the adrenals to produce increased amounts of steroids. Since the production of cortisol is inhibited by metyrapone, 11-deoxycortisol becomes the major adrenal steroid produced. In the past, urinary levels of 17-hydroxysteroids have been used to evaluate the response to metyrapone and, therefore, required the repeated collection of 24 hour urine specimens

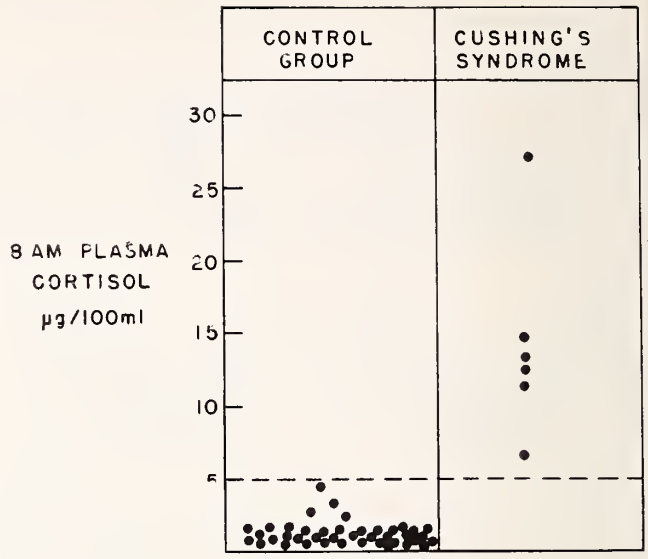


Figure 2

prior to, during and following the administration of the drug.

The recent development of a specific radioligand assay for plasma 11-deoxycortisol has led to the introduction of a simplified metyrapone test.[5, 6] A single oral dose of metyrapone, approximately 30 mg/Kg of body weight, is given at midnight. The drug is administered with a glass of milk and a snack to avoid gastric irritation and to delay gastrointestinal absorption so that adequate blood levels of the drug are maintained through the early morning hours. The following morning at 8 AM a single blood specimen is obtained for the measurement of plasma 11-deoxycortisol.

The single dose overnight metyrapone test was performed in 22 normal subjects and in eight patients with pituitary insufficiency (Figure 3). All patients in whom the diagnosis of

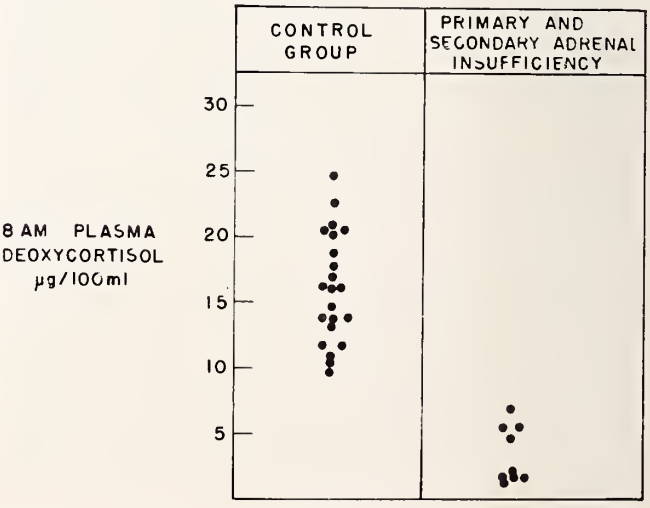


Figure 3

pituitary insufficiency was made had clinical evidence for and endocrine studies which confirmed impairment of at least one additional pituitary hormone (growth hormone, gonadotropins or thyrotropin). In normal subjects the 8 AM plasma 11-deoxycortisol level after metyrapone at midnight ranged from 9.8 to 24.3 μg/100 ml. By contrast in the eight patients with pituitary insufficiency, the 8 AM plasma 11-deoxycortisol values ranged from <2.0 to 7.1 μg/100 ml. It is apparent that this test clearly separates normal subjects from patients with pituitary insufficiency.

No significant adverse reactions were noted in any of our patients. However, nausea, dizziness, headache and rarely the induction of acute adrenal insufficiency have been reported in patients receiving metyrapone. For the latter reason this test should not be performed in patients with severe hypotension or in those who are acutely ill. Patients with primary adrenocortical insufficiency will also have an abnormal response to metyrapone, however, these patients can be differentiated from those with secondary adrenocortical insufficiency by their lack of response to ACTH.

These tests provide the practicing physician with reliable, inexpensive outpatient screening procedures for evaluating patients suspected of either adrenal hyperactivity or diminished ACTH secretory capacity.

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RADIOLOGY WINDOW — CASE NO. 3

(Continued from page 278)

The frontal radiograph (Figure 1) shows no evidence of soft tissue calcification, dislocation or joint space abnormality. The positive contrast arthrogram (Figure 2) reveals filling of the subacromial bursa following injection of the shoulder joint space which is easily recognized and shows a **complete tear of the rotator cuff** near the insertion of the supraspinatus tendon.

ANATOMY AND DISCUSSION

The musculotendinous rotator cuff consists of the subcapsularis inserting on the lesser tuberosity anteriorly; the supraspinatus inserting superiorly on the greater tuberosity with posterior insertion of the infraspinatus and teres minor thereby enclosing the head of the humerus in a broad aponeurosis which is intimately fused with the joint capsule. The subacromial bursa separates this structure from the deltoid muscle and coraco-acromial arch. Most rotator cuff tears occur near the insertion of the supraspinatus portion producing an abnormal communication between the joint and bursa which is easily recognized on the arthrogram. Positive contrast arthrography provides clear evidence of the shape, size and integrity of the joint space. Indications for shoulder joint studies include rotator cuff tear, adhesive capsulitis and recurrent shoulder dislocation. A variable history and clinical signs coupled with negative conventional x-rays often lead to uncertainty. Accurate diagnosis of bursitis, tendonitis, or rotator cuft tear is important and arthrography is of particular benefit if operative repair is contemplated. A normal arthrogram is shown in Figure 3 with the marker indicating the shoulder joint space and thickness of articular cartilage.

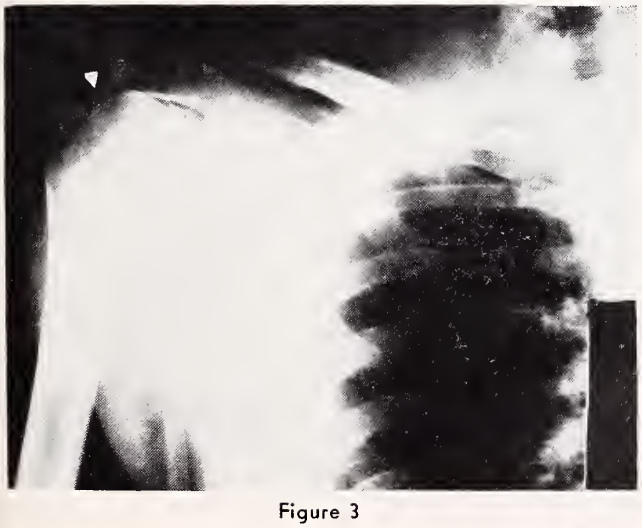


Figure 3

Stratum Corneum Turnover-Time in Acne Vulgaris

CHARLES E. DRISCOLL, B.S.,
WILLIAM C. FRITSCH, M.D., and
RICHARD M. CAPLAN, M.D.
Iowa City

Acne vulgaris and other conditions involving sebaceous follicular occlusion are probably of complex and possibly diverse etiology. In general, elevated sebum production rates are found in acne victims but exceptions are common.[1] Follicular occlusion, however, seems to be present in most if not all lesions of acne.[2] Many patients with acne complain that their skin is "dry" despite seborrhea and only a fraction of these people have concomitant seborrheic dermatitis. Finally, several conditions related to acne such as comedo nevus, scar comedos, senile comedos, post-zoster comedos, precocious acne, steroid acne, chloracne, or iodide acne seem totally unrelated to seborrhea. Follicular occlusion seems to be the common denominator of these conditions and this suggests an abnormality in the rate of keratinization, the composition of the keratin produced, or both.

The stratum corneum is the outermost layer of the epidermis, composed of a tightly layered meshwork of flattened epidermal cells whose cytoplasm and nuclei normally have been enzymatically removed. This layer also dips downward to line the upper two-thirds of the hair follicles. The "shingles" of the normal stratum corneum are constantly moving outward as new shingles are formed beneath. The length of time needed for a cell to pass through the thickness of stratum corneum to be shed from the surface (turnover-time) is about two weeks. We hypothesize that the turnover-time of stratum corneum is increased in patients with acne vulgaris, and this slowed shedding may contribute to the occlusion of the pilosebaceous orifice, which is the cardinal clinical feature of acne vulgaris.

METHOD

Subjects. Men, ranging in age from 18 to 25, were selected from volunteers appearing at The University of Iowa Department of Dermatology out-patient clinic, and classified according to a lesion count. We excluded patients receiving acne therapy but not those who had past acne or current seborrhea. Young subjects who met the criteria and were able to cooperate, especially those free of acne, were few in our clinic at the time of the study. One subject who developed erythema and scaling from application of the TCSA was later eliminated. It is emphasized that classification of severity was done prior to the measurement of stratum corneum turnover-time.

Materials. A 1.08% solution of the water insoluble fluorescent dye 3,5,3′,4′ tetrachlorsalicylanilide (TCSA) dissolved in ethylene glycol monomethyl ether (EGME) was used as a full depth marker of the stratum corneum as originally described by Baker and Kligman.[3] Small glass cylinders, 20 mm long with an internal diameter of 7 mm, were used for application and were held in place with Duco (Dupont) cement applied around the outside of the cylinder. A Wood's light was used for observation of the otherwise invisible TCSA.

Procedure. The subjects were categorized by a lesion count. A lesion was defined as any erythematous papule, pustule, or cyst in an area bounded superiorly by the hairline, later-

This paper is based on investigation supported in part by a Public Health Service General Research Support Grant to The University of Iowa College of Medicine. It has been presented to the Society for Investigative Dermatology, Inc.

ally by the hairline and the ear, and inferiorly by the edge of the mandible. The categories were defined thus: a) 0-2 lesions, normal, b) 3-10 lesions, minimal acne, c) 11-30 lesions, moderate acne, d) over 30 lesions, severe acne. We believe that by this scheme independent observers would not rank group *a* subjects in group *d* or group *d* subjects in group *a*. It is these two groups that will be compared statistically. Data was obtained from 10 subjects in each category except the minimal acne group due to a shortage of suitable subjects, and no further consideration of that group will be undertaken.

The subjects lay on a table while application of the TCSA was made to the forehead, 4.5 cm superior to the intersection of a line connecting the medial terminations of the eyebrows and a perpendicular line through the center of the nose. The glass cylinders were glued in place, allowed to dry for 10 minutes, and then 0.25 cc of the TCSA solution was placed within. The eyes of the subjects were shielded by gauze squares from any possible spillage. Thirty minutes were allowed for the dye to permeate the stratum corneum. Although Baker and Kligman[3] recommended a permeation time of 1 hour or longer, we ascertained by cellophane tape stripping under the Wood's lamp that 30 minutes was an adequate time for complete and uniform marking of the stratum corneum of the forehead; this may not hold true for other areas of the body. Baker and Kligman observed that TCSA in EGME produces full depth staining of stratum corneum with no visible staining of non-cornified epidermis. We confirmed this finding using fluorescent microscopy of rabbit skin. The subjects were instructed to apply nothing to the test area except Ivory soap and water, and to wash in their usual manner with their usual frequency. They were cautioned to avoid excessive exposure to sunlight and to be alert to the possibility of photo-contact dermatitis induced by the TCSA.

Monitoring of the site of fluorescence was begun on day 4 and continued daily thereafter at approximately the same time each day until the day of complete disappearance of the spot from the skin, which was considered the end point. The end point was unequivocal and was verified by two observers in all but two subjects. No application was made on any area of erythema or scale, and careful checking of the application site was done to detect inflammation, which might influence the turnover-time. The frequency of daily face washing was also recorded.

TABLE I

STRATUM CORNEUM TURNOVER-TIME IN DAYS FOR THE FOREHEADS OF MEN, 18-25

Normal	Moderate Acne	Severe Acne
8	9	11
7	8	10
7	8	9
7	7	8
6	7	8
6	6	8
5	6	7
5	6	7
5	6	6
4	5	6
$\bar{X}$ 6.0	6.8	8.0
S. D. .. ±1.3	±1.2	±1.6

RESULTS

The stratum corneum turnover-time for each subject is shown in Table I. There is a wide range in each category and an area of overlap exists between normal (group a) and severe acne (group d). A range of 4 days was found in the normal and moderate categories, and a range of 5 days for the severe group. The means and standard deviations for each group are also shown in Table I. In Figure 1, the means are shown graphically and the plot of them is almost a straight line. The mean turnover-time for normal (group a) and that for severe acne (group d) were compared by a t test.[4] A statistically significant ($p<.05$) difference was found. The average age of the normal subjects (group a) was 24.1 years while that of the severe acne subjects (group d) was 20.3 years. Again, comparison by a t test showed a statistically significant ($p<.05$) difference. The average numbers of daily face washings for these two groups were compared by a t test and the difference was not significant at the .05 level. We think that variation in frequency of face washing did not influence the results.

Baker and Kligman, using a 1.5% TCSA solution and a permeation time of 60 minutes

obtained an end-point of 6.3 ± 1.4 days in "healthy adult men." This is close to the value of 6.0 ± 1.3 days that we found in normal young men using a 1.08% TCSA solution and a 30 minute permeation time. Whereas they observed irritation in ⅓ of the subjects tested, we saw only one instance in over 30 people.

DISCUSSION

This project was originally planned to study the follicle in acne. We hoped to be able to determine the turnover-time for follicular stratum corneum using TCSA and a standard staining procedure, as did Baker and Kligman for surface stratum corneum. We found that this could not be done since selective staining was not achieved and no residual follicular staining was seen on disappearance of surface stratum corneum staining. In addition, many of the medium-sized follicles have a natural fluorescence similar to that of TCSA. Therefore, we had to assume that any abnormality in follicular stratum corneum would also be found in surface stratum corneum.

Reading the end-point for stratum corneum can sometimes be difficult. Vellus hairs take up TCSA and magnification is required to distinguish their fluorescence from that of stratum corneum. Objectivity of the end-point would be improved if the readings could be instrumented. However, a fluorometer would probably not discriminate between fluorescence of vellus hairs and that of surface stratum corneum. In separate studies, attempts to remove all the hairs with a single scotch tape "stripping" prior to labelling failed, but tape strippings done later for extraction and colorimeter reading included enough stained hairs to affect the results.

Our data indicates an increased stratum corneum turnover-time in acne but does not indicate whether it is due to an abnormally thick stratum corneum with a normal rate of shed-

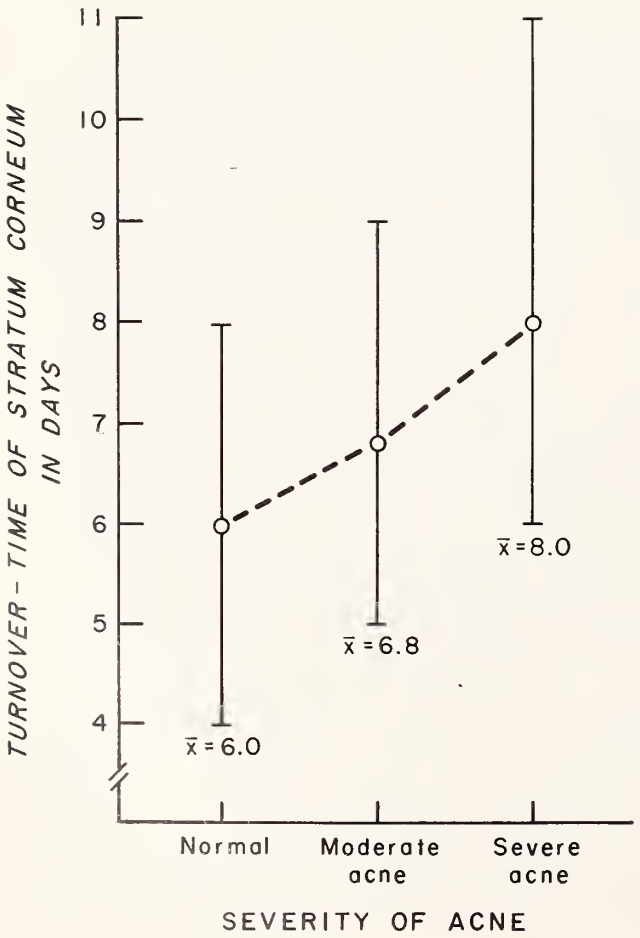


Figure 1. High, mean and low values of stratum corneum turnover-time as a function of severity of acne.

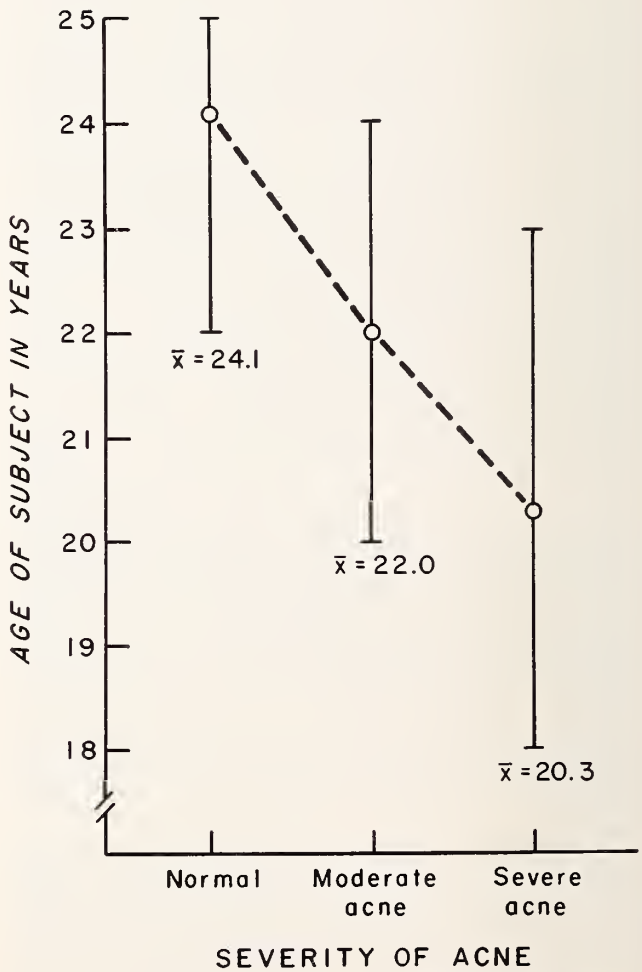


Figure 2. High, mean and low ages for the normal, moderate acne and severe acne groups.

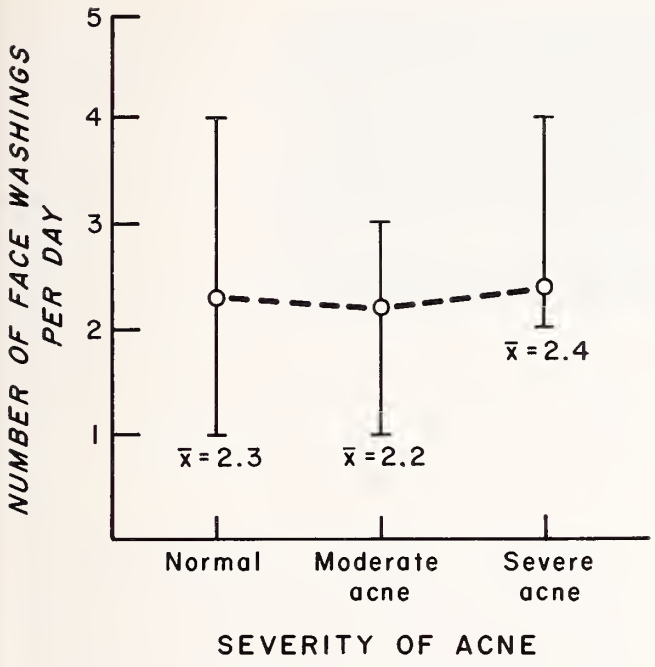


Figure 3. High, mean and low frequency of daily face washing for the normal, moderate acne and severe acne groups.

ding, or a stratum corneum of normal thickness with a decreased rate of shedding (Figure 4). If the stratum corneum were very much thicker than normal it could be moving slightly faster than normal and still have an increased turnover-time. Conversely, it could be somewhat thinner than normal but if moving very slowly have an increased turnover-time. Turnover-time probably depends not only on the rate of stratum corneum production but the composition of stratum corneum,[5] which in turn determines its rate of shedding. Accurate quantitative measurements of stratum corneum would permit a quantitative expression of turnover with respect to time. We must presume that stratum corneum production and loss were at equilibrium in our subjects.

Inasmuch as we did not select the subjects according to age, the average age of the severe acne group proved significantly lower than that of the normal group. Therefore, one might wonder if the difference in turnover-time in the two groups was related to age and not to acne. However, we believe that this possibility does not invalidate our work; instead, it suggests a mechanism to explain why acne so often resolves as the patient passes from the teens into the twenties, during which time sebum production has not been found to decline.[6]

Clinical experience provides indirect evidence that seborrhea is not the sole determinant of acne. Many people with oily skin do not have acne. In fact, sebum production rates in the range common for acne have been measured in normal men.[1] On the other hand, people with acne often show sebum production rates in the normal range. Furthermore, one sees the open comedo—a follicle whose sebaceous gland is atrophic or absent. How do we explain acne on the back, buttocks, and arms where oiliness is much less than that of the face?[7, 8] And how do we account for comedo nevus, scar comedo, post-zoster comedo, precocious acne, steroid acne, chloracne and iodide acne which develop in the absence of seborrhea?

Further observations suggest that an abnormality in stratum corneum production plays a part in the development of acne. People with acne often complain of facial "dryness" that is inexplicable. Does this represent hyperkeratosis? One can speculate that fever relieves acne by increasing the rate of stratum corneum turnover. Perhaps ultraviolet light and some topical agents are effective by this same mechanism. We do not yet know whether agents administered internally for acne affect the

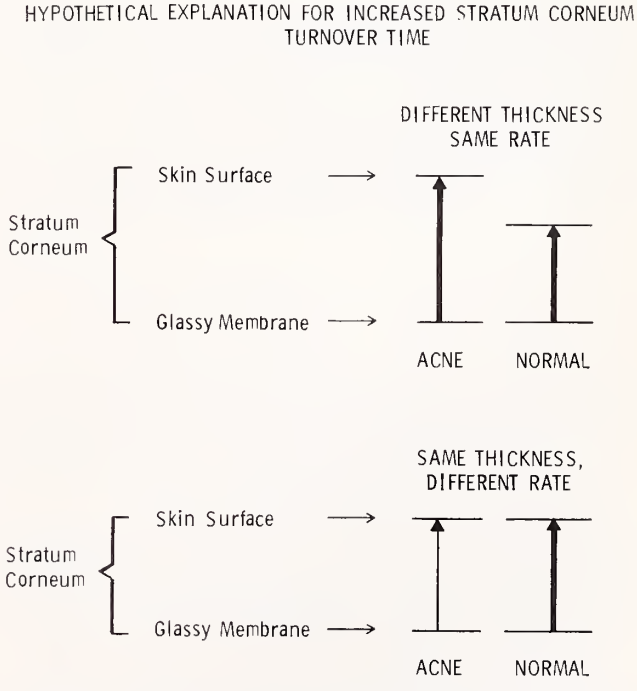


Figure 4. The two simplest explanations for an increased stratum corneum turnover-time are diagrammed. The top example indicates hyperkeratosis and a normal rate of shedding and the bottom example indicates a stratum corneum of normal thickness with a retarded rate of shedding.

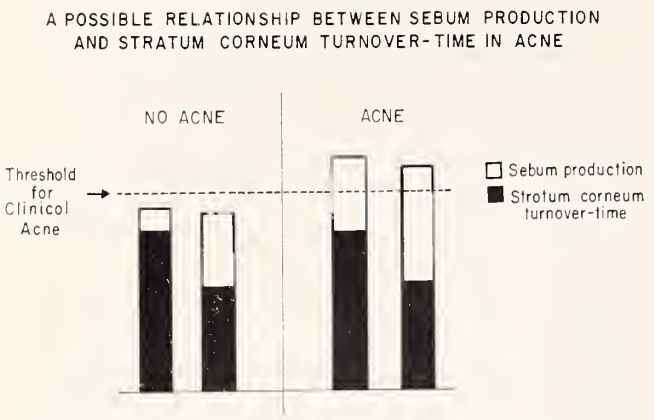


Figure 5. From the left, the first column shows a relatively high turnover-time but a low sebum production and no acne; the second column shows a relatively low turnover-time and despite a relatively high sebum production no acne; the third column shows the same turnover-time as the first column, the same sebum production as the second column and the relatively high values of each result in acne; the fourth column shows a turnover-time as low as the second column but here sebum production is high enough to produce acne.

turnover-time of the stratum corneum. Finally, the elderly, who have recently been shown to have a decreased stratum corneum turnover rate,[9] often have facial comedos. They often complain of dry skin and perhaps their senescent sebaceous function is all that prevents inflammatory acne.[8, 10]

We can hypothesize that inflammatory acne represents the combined effect of seborrhea and follicular occlusion (Figure 5). The latter may be related to a factor in sebum or be independent. Sebum has been shown to be comedogenic and sebum from different individuals is variable in this regard.[11] However, the comedogenicity of sebum has not yet been proved to cause acne. Turnover-time may be related to the metabolic activity of epidermis. Epidermis may participate with sebaceous glands and other tissues in the dramatic alterations of puberty. Simultaneous measurements of stratum corneum turnover-time and sebum production rates need to be done for normal people and those with specific disorders. The evidence is clear in our opinion that an abnormality in the rate of production or in the composition of the stratum corneum is an important pathogenic mechanism in acne.

SUMMARY

We studied the relationship between severity of acne and the stratum corneum turnover-time of the foreheads of young men. The stratum corneum was stained with fluorescent TCSA and observed daily until the disappearance of fluorescence. A significant direct relationship was found between severity of acne and turnover-time. A significant inverse relationship was found between severity and age, and between turnover-time and age.

ACKNOWLEDGMENT

The authors thank Dr. Paul E. Leaverton, Dr. William O. Rieke, Dr. Frank Lyman and Christopher G. Nelson for their cooperation and assistance in this study.

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PATHOLOGY CAPSULES—(Continued from page 277)

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Editorials

M. E. ALBERTS, M.D., Scientific Editor

ALL WORK AND NO PLAY . . .

Conversation in the hospital medical staff lounges centers more and more these fine mornings on the abilities of various individuals on the golf course. A poor drive; an exceptional putt; the need for a different grip; all these enter into the discussion.

But what about those of us who do not play golf? Are we to be overshadowed in the morning discussions? After all, there are other things in life, aren't there?

True, many individuals keep "in shape" during the winter with skiing and skating, in addition to indoor gymnasium sports. This is great! Then, in the spring many who have been relatively inactive during the winter emerge from their studies to engage in some form of physical activity—golf, gardening, fishing, walking through the woods in search of mushrooms, and such. To each his own, as long as it provides an opportunity for physical activity apart from the daily and long schedule usually associated with the practice of medicine.

The problem however is the inconsistency of the physical activity. Our seasonal weather has a distinct bearing on our exercise program. Certain activities are impossible during the winter. We cannot change the seasons, so our plans must be modified or approached with moderation. To become suddenly active in the spring without ample conditioning may be as disastrous as scooping the huge drifts of snow in the winter.

Go easy at first; warm up to the activity before going full tilt. Do something though. Don't just sit in front of the "boob tube" watching re-runs. Fish, garden, hike, play tennis, swim, play golf, or whatever suits your purpose.

Say, did I tell you about that big bass that snapped my line?—M.E.A.

SHOCKING, ISN'T IT?

Do you remember the use of the faradic battery to provide current for the treatment of such ailments as rheumatism? I have before me a 1906 medical supply catalogue which advertises "The Best! The Handsomest! The Cheapest!" dry cell family battery "invaluable for patients traveling or moving from place to place." Included in the case for the price of six dollars are metal handles, foot plate, sponge disc electrodes and a pair of insulating handles for use with any of the available electrodes. If the patient desired something better he could purchase a 12-cell combined galvanic and faradic battery complete with a polished black walnut case for 20 dollars.

Apparently, the electric currents were supposed to be helpful in relieving the pain of rheumatism and arthritis. Benjamin Franklin, working with a Doctor John Fathergill and a Doctor John Pringle, conducted experiments using electric shock to cure palsy. Franklin admitted no physical change resulted from the shock, but the spirits of the patient were lifted. It is recorded that Franklin also helped a physician employ electricity in treating a woman suffering with convulsions. Electricity in any form, and radio waves since World War II, have presented a strong fascination to pseudo-healers and ethical physicians.

I am not offering a dissertation on quackery or such. I could not avoid thinking of the past when I read a news release from the National Society for Medical Research which reports in a preliminary way on the healing of bone defects by the use of electric current. The process is felt to stimulate growth and speed the healing of fractures. Researchers at Downstate Medical Center in New York and at the University of Pennsylvania have used this modality in non-union fractures as well as pseudoarthrosis. Some studies utilizing rabbits have shown that electrical stimulation healed fractured bones within three weeks.

I do not imply in any way that these studies represent quackery. They are representative of many innovative approaches being taken in the area of medical research. It was Disraeli who said, "The more extensive a man's knowledge of what has been done, the greater will be his power of knowing what to do."

The more complete reports on this research project undoubtedly will be very interesting and most welcome.—M.E.A.

ENRICHMENTS

The May 8, 1972 issue of the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION contains a statement by the AMA Council on Foods and Nutrition on the addition of iron to enriched wheat flour, farina, bread, buns and rolls. Enrichment of flour and bread has been practiced since the early 1940's. On December 3, 1971 the Food and Drug Administration proposed to modify the standards to increase the iron enrichment levels. This tack follows to some extent the recent introduction of iron-enriched infant milk formulas. There is apparent concern about the prevalence of iron-deficiency anemia in the United States.

The Council on Foods and Nutrition reiterates its conclusion that it is in the public interest to increase the iron content of enriched wheat flour, bread, buns and rolls. It is further stated that the FDA should be encouraged to develop other enrichment programs.

It has been my observation that some further considerations might be entertained. Many school children eat atrocious diets . . . of their own choice as well as their parents. If milk and bread are to be enriched, consider the other foods that children eat and drink . . . pizza, donuts, spaghetti, cola and uncola drinks, potato chips and hamburgers. These are the foods that youth eats to subsist. I have observed children in school cafeterias making a lunch of donuts and milk (no iron), others going to school consuming potato chips and a soft drink . . . presumably their breakfast.

If we are going to enrich foods let us go to the ones that people eat. After all, the pizza establishments and the hamburger palaces are very successful. Shouldn't they be encouraged to assist in providing full nutrition to their patrons?—M.E.A.

WHO NEEDS THE AMA?

The eternal cry is raised, who needs the AMA? What does it do for me? It's too liberal! It's too reactionary! It's too conservative!

Anyone who has followed the AMA knows that the voices of dissension and criticism are now being heard in that organization. As all organizations must change to survive, the AMA is changing. What direction it takes depends on those of you who are interested enough to have a part of the action.

There is not a single physician in this country today who has not benefited from the AMA when one considers the fantastic amount of work that they have done on a national scale in all facets of medicine and public health. A look at their journals, magazines, committees, councils, and task forces will vouch for this.

I think it is morally unacceptable for us to share in the benefits of the AMA without supporting the AMA. (Excerpt from a speech by Edward Siegel, M.D., President of the Medical Society of New York.)

State Department of Health

ARNOLD M. REEVE, M.D., M.P.H., Commissioner

HEALTH DEPARTMENT SURVEYS PHYSICIANS

The 6,200 physicians licensed by the State of Iowa have been asked to cooperate in an effort to learn more about where they practice, how old they are, what training they have had, their type of practice and where they serve their patients. A questionnaire has been mailed to each physician with the notification of license renewal.

Answers will be tabulated by the State Department of Health and will update older studies. The information will be computerized and the assembled data will be made available to interested agencies.

The last comprehensive survey of this type was made in 1968 by the American Medical Association. Many situations have changed since then. Only the physicians themselves are able to supply all the items required. Information is available on board certified specialists but information about physicians without certification is often not included in available directories.

The data from the returned questionnaires will provide current information for the study of medical manpower distribution and will help locate shortage areas. Health planning, manpower studies and management of loan-forgiveness are difficult without current statistics.

All Iowa physicians are urged to return the questionnaires with their renewal forms as early as possible.

PREVENTION OF TRAVELERS' DIARRHEA

Travelers' diarrhea occurs throughout the world, but it is most common where personal hygiene and sanitation are poor. The syndrome is characterized by diarrhea, often accompanied by vomiting, abdominal cramps, chills and low-grade fever. In most patients, the symptoms disappear in one to three days.

The cause of travelers' diarrhea is uncertain. The disease is sometimes attributed to unaccustomed or exotic foods and seasonings, but their involvement is doubtful. Specific microorganisms, i.e., *Shigella sp., Salmonella sp.,* and enteropathogenic *Escherichia coli* are occasionally found in the stools of patients with travelers' diarrhea and recent studies suggest that toxin producing and mucosal penetrating strains of *E. coli* may be the cause of this syndrome, but further study is necessary.

Iodochlorhydroxyquin (Entero-Vioform) has been used for many years to prevent travelers' diarrhea. Many tropical disease specialists believe that it is ineffective for this purpose. Recently iodochlorhydroxyquin was implicated in Japan, Australia, and Sweden, as the cause of a severe neurologic disease (subacute myelo-optic neuropathy). Therefore, until evidence is available to confirm or refute this association, physicians and travelers should be advised to refrain from prescribing or using iodochlorhydroxyquin (Entero-Vioform) to prevent travelers' diarrhea.

Travelers to areas where hygiene and sanitation are poor should be advised that the best way to prevent diarrhea is to eat only what can be peeled or has been cooked, and to drink only boiled or bottled water, beverages that have been boiled, bottled carbonated soft drinks, beer and wine. Tap water used for tooth brushing and for ice in drinks can be a source of infection. However, tap water which is uncomfortably hot to the touch is usually safe. It may be used for oral hygiene and for drinking after cooling. If diarrhea does occur it is usually shortlived; if it persists, a physician should be consulted. (U. S. Public Health Service Foreign Quarantine Program Advisory Memorandum No. 31 April 10, 1972)

Further discussion of this matter can be found in the April 10, 1972 issue of the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION (Pages 273 through 276).

(Please turn to page 302)

Morbidity Report for April 1972

Diseases	April 1972	1972 to Date	1971 to Date	Most April Cases Reported From These Counties
Brucellosis	5	11	6	Buena Vista, Cherokee
Chickenpox	1240	5112	3912	Black Hawk, Dubuque, Linn, Polk
Conjunctivitis	175	425	162	Warren, Woodbury
Encephalitis				
Mumps	1	2	0	Lee
Viral	3	4	2	Des Moines, Franklin, Winnebago
Type unspec.	1	1	0	Pottawattamie
Gastrointestinal viral infection	539	3755	4685	Clayton, Johnson
German measles	102	299	420	Black Hawk, Story
Gonorrhea	494	2112	1631	Polk
Hepatitis				
Infectious	27	101	115	Polk
Serum	13	19	9	Polk
Histoplasmosis	2	12	8	Butler, Monroe
Impetigo	31	203	180	Black Hawk, Linn
Infectious mononucleosis	110	398	523	Johnson
Lymphogranuloma Ven.	1	3	0	Johnson
Malaria, imported				
P. vivax	2	2	11	Clay, Emmet
Measles	102	368	1546	Buena Vista, Story
Meningitis				
Bacterial	1	1	1	Dallas
H. influenza	2	3	3	Muscatine, Scott
Viral	1	2	2	Fayette
Type unspecified	4	7	5	Polk
Meningo-encephalitis	1	1	1	Scott
Mumps	968	4652	2176	Dubuque, Linn
Pneumonia	63	343	369	Pottawattamie, Scott
Rabies in Animals	32	93	98	Scattered
Rheumatic fever	5	17	28	Calhoun, Clayton, Jackson, Jasper, Tama
Ringworm, body	7	42	68	Monona
Roseola	1	5	6	Wapello
Salmonellosis				
S. blockley	1	3	5	Woodbury
S. enteritidis	4	5	3	Lee
S. heidelberg	3	7	0	Polk
S. java	1	1	1	Black Hawk
S. newport	1	4	7	Lee
S. panama	1	1	0	Woodbury
S. saint paul	2	2	0	Polk, Warren
S. typhimurium	1	10	6	Polk
Shigellosis				
S. sonnei	17	83	23	Polk, Scott
Streptococcal infections	834	3363	3358	Johnson
Syphilis	49	165	209	Linn, Polk
Tuberculosis, active	19	41	50	Scattered
Whooping cough	3	15	11	Woodbury

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(chlorphentermine HCl)

CAUTION: Federal law prohibits dispensing without prescription.

Indications: Pre-Sate (chlorphentermine hydrochloride) is indicated in exogenous obesity, as a short term (*i.e.*, several weeks) adjunct in a regimen of weight reduction based upon caloric restriction.

Contraindications: Glaucoma, hyperthyroidism, pheochromocytoma, hypersensitivity to sympathomimetic amines, and agitated states. Pre-Sate (chlorphentermine hydrochloride) is also contraindicated in patients with a history of drug abuse or symptomatic cardiovascular disease of the following types: advanced arteriosclerosis, severe coronary artery disease, moderate to severe hypertension, or cardiac conduction abnormalities with danger of arrhythmias. The drug is also contraindicated during or within 14 days following administration of monamine oxidase inhibitors, since hypertensive crises may result.

Warnings: When weight loss is unsatisfactory the recommended dosage should not be increased in an attempt to obtain increased anorexigenic effect; discontinue the drug. Tolerance to the anorectic effect may develop. Drowsiness or stimulation may occur and may impair ability to engage in potentially hazardous activities such as operating machinery, driving a motor vehicle, or performing tasks requiring precision work or critical judgment. Therefore, such patients should be cautioned accordingly. Caution must be exercised if Pre-Sate (chlorphentermine hydrochloride) is used concomitantly with other central nervous system stimulants. There have been reports of pulmonary hypertension in patients who received related drugs.

Drug Dependence: Drugs of this type have a potential for abuse. Patients have been known to increase the intake of drugs of this type to many times the dosages recommended. In long-term controlled studies with high dosages of Pre-Sate, abrupt cessation did not result in symptoms of withdrawal.

Usage In Pregnancy: The safety of Pre-Sate (chlorphentermine hydrochloride) in human pregnancy has not yet been clearly established. The use of anorectic agents by women who are or who may become pregnant, and especially those in the first trimester of pregnancy, requires that the potential benefit be weighed against the possible hazard to mother and child. Use of the drug during lactation is not recommended. Mammalian reproductive and teratogenic studies with high multiples of the human dose have been negative.

Usage In Children: Not recommended for use in children under 12 years of age.

Precautions: In patients with diabetes mellitus there may be alteration of insulin requirements due to dietary restrictions and weight loss. Pre-Sate (chlorphentermine hydrochloride) should be used with caution when obesity complicates the management of patients with mild to moderate cardiovascular disease or diabetes mellitus, and only when dietary restriction alone has been unsuccessful in achieving desired weight reduction. In prescribing this drug for obese patients in whom it is undesirable to introduce CNS stimulation or pressor effect, the physician should be alert to the individual who may be overly sensitive to this drug. Psychologic disturbances have been reported in patients who concomitantly receive an anorexic agent and a restrictive dietary regimen.

Adverse Reactions: Central Nervous System: When CNS side effects occur, they are most often manifested as drowsiness or sedation or overstimulation and restlessness. Insomnia, dizziness, headache, euphoria, dysphoria, and tremor may also occur. Psychotic episodes, although rare, have been noted even at recommended doses. **Cardiovascular:** tachycardia, palpitation, elevation of blood pressure. **Gastrointestinal:** nausea and vomiting, diarrhea, unpleasant taste, constipation. **Endocrine:** changes in libido, impotence. **Autonomic:** dryness of mouth, sweating, mydriasis. **Allergic:** urticaria. **Genitourinary:** diuresis and, rarely, difficulty in initiating micturition. **Others:** Paresthesias, sural spasms.

Dosage and Administration: The recommended adult daily dose of Pre-Sate (chlorphentermine hydrochloride) is one tablet (equivalent to 65 mg chlorphentermine base) taken after the first meal of the day. Use in children under 12 not recommended.

Overdosage: Manifestations: Restlessness, confusion, assaultiveness, hallucinations, panic states, and hyperpyrexia may be manifestations of acute intoxication with anorectic agents. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension, or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Fatal poisoning usually terminates in convulsions and coma.

Management: Management of acute intoxication with sympathomimetic amines is largely symptomatic and supportive and often includes sedation with a barbiturate. If hypertension is marked, the use of a nitrate or rapidly acting alpha-receptor blocking agent should be considered. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendations in this regard.

How Supplied: Each Pre-Sate (chlorphentermine hydrochloride) tablet contains the equivalent of 65 mg chlorphentermine base; bottles of 100 and 1000 tablets.

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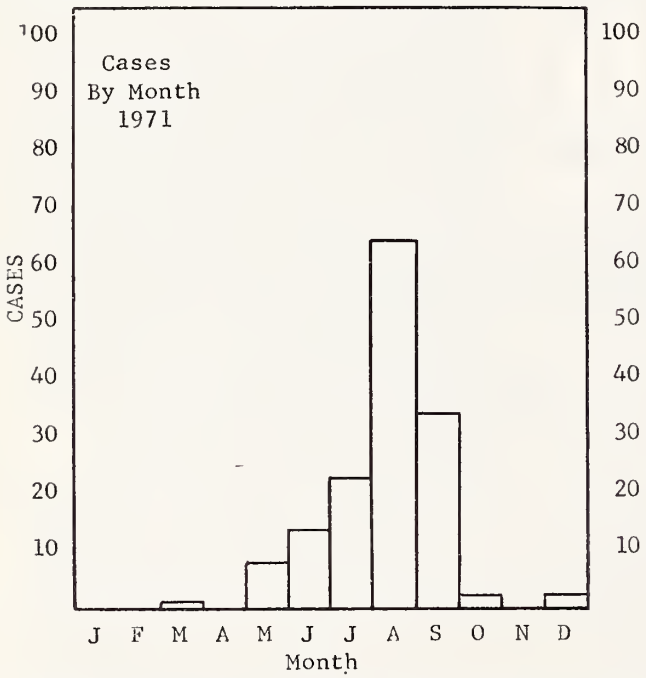
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ENCEPHALOMYELITIS IN HORSES

Veterinarians in Iowa reported 147 clinical cases of encephalomyelitis in 1971. Thirty-seven of the horses died. Cases reported in previous years are as follows:

Year	Cases
1963	621
1964	1,287
1965	812
1966	262
1967	289
1968	394
1969	255
1970	449
1971	147

The graph shows the usual high number of cases during the months in which mosquitoes, the common vector, are most abundant. The location of horse cases indicate the virus causing the disease is widely disseminated in Iowa. The county distribution of reported clinical equine viral encephalomyelitis cases and deaths is as follows:



Audubon	1/0	Humboldt	1/0
Black Hawk	9/5	Ida	2/0
Boone	1/1	Jefferson	1/1
Bremer	2/1	Keokuk	1/1
Buchanan	4/1	Kossuth	5/2
Buena Vista	1/1	Lee	3/0
Calhoun	3/0	Linn	1/0
Carroll	1/1	Lyon	1/0
Cass	8/2	Madison	10/1
Cerro Gordo	6/3	Mahaska	2/1
Cherokee	3/0	Marion	1/0
Chickasaw	2/2	Mills	4/0
Clarke	3/1	Monona	3/0
Crawford	1/0	Montgomery	3/1
Dallas	8/1	Page	1/0
Davis	2/0	Plymouth	2/0
Dickinson	1/0	Pocahontas	1/0
Emmet	6/2	Pottawattamie	2/0
Fayette	2/1	Sac	1/0
Floyd	1/1	Shelby	1/0
Fremont	2/0	Van Buren	1/1
Grundy	7/0	Warren	8/2
Hamilton	6/0	Wayne	2/2
Hardin	1/0	Woodbury	2/0
Harrison	1/0	Wright	5/2

• • •

MOBILE X-RAY . . . State health officers have been advised by HEW to stop the use of mobile equipment for x-raying members of the general population for tuberculosis and other chest diseases. A joint policy statement to this end has been prepared by the HEW Food and Drug Administration, the American College of Chest Physicians and the American College of Radiology.

DO YOU REMEMBER WHEN—

When we were taught the best way to stimulate breathing in an apnea newborn was to insert a finger into the rectum? Certainly this method was as old as midwifery itself. Obviously, science, in its inexorable advance through the centuries, would make improvements on this method. With the introduction of tobacco smoking in the late sixteenth century and with its increase in the seventeenth century it was observed to cause a great increase in spittle. It was therefore judged to be a fine stimulant of the humors.

Why not then, if the finger failed, a smoke clyster?

A few successes were enough to convince the Dutch, in their waterlogged country, that here was a bright new hope for resuscitation of the drowned. Their enthusiasm was so potent that by the eighteenth century it had infected the French. Organizations to resuscitate the drowned were established at Lyons, Touro, Lille, LaRochelle and Dunkirk where stations were equipped with an emergency kit. The kit included a "fumigation machine" with directions:

"Place ½ oz of tobacco in box of machine. Insert pipe of machine into the fundament. Attach bellows and force smoke through pipe. Should take ¾ hour for ½ oz tobacco. *Bellows should be blown gently. . . .*"*

Now, suppose the surgeon general should need resuscitation. . . .—GEORGE E. MORRISSEY, M.D., *IMS Historical Committee.*

* Warren, J. C.: The Pulmotor of 18th Century. Annals of History of Medicine, Vol. I, 1920.

Medical Assistants

by TENORA MEYER

OUR NEW PRESIDENT



Mrs. Marcine Sanders of Davenport, Iowa, was installed as President of the American Association of Medical Assistants, State of Iowa, Inc., at the May 20 convention in Cedar Rapids.

Following is the acceptance speech by Mrs. Sanders:

"The opportunity to serve as President of AAMA, State of Iowa, is indeed an honor, and I am looking forward to working with all of you this coming year. I am not only grateful for your vote of confidence but aware of the responsibilities. The future holds both challenge and opportunity for all of us in the allied health field. I am confident, however, that with your continued cooperation and support AAMA, State of Iowa, will meet these challenges, take advantage of the opportunities, and GROW in 1972-73.

"Our role as a member of the health care team becomes more intriguing and challenging each year. As members of AAMA we must continue our leadership in providing educational opportunities for the medical assistant. These educational programs must be continually updated and expanded to include new clinical technics, office procedures and an awareness of impending legislation regarding medical problems. We must constantly strive to plan outstanding programs which will reaffirm the educational goals of AAMA. In the not too distant future, certification may well be a requirement in the paramedical field.

"A special effort must also be made to recruit new members. Fresh enthusiasm and new ideas are vital for a healthy organization. At the present time there are approximately 2,400 members of the Iowa Medical Society, each of which employs at least one potential member of AAMA. National membership is growing . . . let's make certain that Iowa 'grows with the nation.'

"The road to achievement and success is never an easy one. However, active member participation and communication will eliminate many of the obstacles and detours encountered. Remember that unity is strength, and communication is the soul of progress.

"Whether or not AAMA, State of Iowa, continues to grow and move forward depends on YOU. Without you nothing can be accomplished, but with your combined efforts no task is too difficult, and no challenge is too great."

—Marcine Sanders, CMA



SERVE COFFEE—These medical assistants were among those who served coffee to Iowa physicians attending the first session of the IMS House of Delegates Sunday, April 23.

BOONE & GREENE COUNTIES . . . About 300 persons aged 1-74 years from Boone and Greene Counties will be invited to receive health and nutrition examinations between July 13 and ending August 3. The examining program is part of a nationwide survey of young persons and adults conducted by the Health and Nutrition Examination Survey of the U. S. Public Health Service. The two-year survey is being made at 64 different sites in the country.

About IOWA Physicians

Dr. Donald E. Boyle, of Sioux City, recently participated in a program on health care professions for high school students interested in medical and para-medical careers. The meeting was sponsored by St. Joseph Mercy Hospital in Sioux City. The event was co-sponsored by the Boy Scouts of America.

Dr. William E. Connor, director of the Clinical Research Center at The U. of I. College of Medicine, recently gave a public lecture at Grinnell College on effect of fats on the heart.

Dr. John M. Rhodes, Jr., of Pocahontas, recently participated in a program on venereal disease and drug abuse sponsored by the Pocahontas County Extension Service. Dr. Rhodes spoke on the many forms of drug abuse.

Dr. Donald Warkentin, an associate professor in the Department of Internal Medicine at The U. of I. College of Medicine, spoke on modern coronary care at a recent meeting in Fairfield of the Southeast Iowa Division of the Iowa Heart Association.

Dr. G. E. Montgomery, of Ames, was a recent guest speaker on the WMT radio program, "Open Line." Dr. Montgomery's subject was "Cholesterol."

Dr. and Mrs. Max Olsen, of Minden, attended the National Rural Health Conference in San Francisco, California. Dr. Olsen is Chairman of the IMS Committee on Rural Health.

Dr. John Tyrrell, of Manchester, has initiated a new Explorer Post in Manchester. The Post will serve as a means of helping high school and junior high students explore opportunities in the health field.

Dr. Phillip G. Couchman, of Mt. Pleasant, presented an illustrated talk on his recent trip to the Orient at a March meeting of the Mt. Pleasant Rotary Club. Dr. Couchman gave a slide presentation on the Siberian-Mongolia portion of his trip showing various cities visited, way of life, and medical facilities.

Dr. John Jaquis, of Cedar Falls, departed in March to work in a missionary hospital in Bangladesh. Dr. Jaquis served as a medical missionary in East Pakistan—now Bangladesh—in 1969.

Dr. William R. Wilson, professor in the Department of Internal Medicine at The U. of I. College of Medicine, recently announced the publication of a brochure titled, "Volunteers in Community Service," describing the community program of the Iowa Heart Association. Copies of the brochure are available upon request from the Iowa Heart Association, 529 Thirty-sixth Street, Des Moines, Iowa 50312.

Dr. Joseph M. Torruella, of Des Moines, spoke on "Surgical Aspects of Coronary Artery Disease," at the March meeting of the Dallas-Guthrie County Medical Society.

Dr. Richard L. Lawton, professor of surgery at The U. of I. College of Medicine, told of the need for kidney donors at a recent meeting of the North Iowa Life Underwriters in Mason City. While in Mason City, Dr. Lawton also spoke at the Mason City High School on "The Need for Procurement of Vital Organs."

Dr. William B. Bean, Sir William Osler Professor of Internal Medicine at The U. of I., has presented three papers recently to various medical associations. Dr. Bean spoke at a meeting of the Association of Professors of Gynecology and Obstetrics in New Orleans on "Subspecialties in Internal Medicine"; he gave the Alpha Omega Alpha Lecture at the Louisiana State University Medical Center on "The Endeavor and Accomplishments of Walter Reed"; and he reported on "Treatment by Nu-

trition" at an American College of Physicians Conference at the University of Pennsylvania. Dr. Bean is presently on leave of absence from The U. of I. and is completing a book on Walter Reed at the University of Virginia.

Dr. Aaron Randolph, of Anamosa, participated in a panel discussion on emergency ambulance service at a recent meeting of the Anamosa Rotary Club.

Dr. R. M. Lauer, professor in the Department of Pediatrics at The U. of I. College of Medicine, has been named to an 18-member panel to work with investigators probing heart disease. Dr. Lauer will work with **Dr. John S. Mills,** president and director of the National Fund for Medical Education.

Dr. and Mrs. William Robb, of Fort Dodge, recently attended the National Nephrology Conference in Seattle, Washington. The conference was sponsored by the American Society for Artificial Internal Organs.

Dr. Roger Rademacher will join **Drs. Werner Pelz** and **Edward Schmiedel** in the practice of medicine in Charles City in July. Dr. Rademacher attended medical school in Kansas City and at the present time is an intern in Dallas, Texas. He will complete his internship in June.

Dr. R. B. Widmer, of Winfield, has been appointed an assistant professor in the Department of Family Practice at The U. of I. College of Medicine. A 1943 graduate of The U. of I. College of Medicine, Dr. Widmer has practiced medicine in Winfield for 23 years.

Dr. A. E. Braley, president of the Eye Bank Association of America, presided at a recent Iowa City meeting of The North Central Region of the Association. Dr. Braley is former head of The U. of I. Department of Ophthalmology and is now in private practice in Iowa City.

An estimated 1,300 residents of Belmond honored **S. P. Leinbach,** M.D., in April for his long and dedicated service "to community, state and nation." On the occasion a new community center was officially designated "Leinbach Center" in honor of the past president of the Iowa Medical Society. A "This Is Your Life" program involved a number of relatives and friends of Dr. Leinbach and included the following Iowa physicians: **J. H. Sunderbruch,** M.D., Davenport; **R. L. Wicks,** M.D., Boone; **J. F. Bishop,** M.D., Davenport; **K. E. Lister,** M.D., Ottumwa; **C. W. Seibert,** M.D., Water-



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'72 ANNUAL MEETING IN REVIEW—

ABOVE—Upper left: Peter Petrich, president, Indiana State Medical Association, left, jokes with K. A. Garber, Corydon. Middle: Dr. and Mrs. R. L. Wicks, left, visit with Dr. and Mrs. R. T. Kelly, Grand Rapids, Minnesota. Dr. Kelly is president of the Minnesota State Medical Association. **Right:** L. J. O'Brien, left, and W. M. Krigsten, Sioux City, pose with banquet speaker Ann Landers. **Lower left:** IMS past-presidents, seated, from left, C. W. Seibert, Waterloo, R. N. Larimer, Sioux City, and O. D. Wolfe, Marshalltown. Standing, from left, O. N. Glesne, Fort Dodge, J. H. Sunderbruch, Davenport, S. P. Leinbach, Belmond, R. F. Birge, Des Moines, and C. V. Edwards, Sr., Council Bluffs. **Right:** J. W. Eckstein, left, Dean, College of Medicine, holds $13,084 AMA-ERF check presented to the College and visits with senior medical student Roy Shannon, center, and IMS Board Chairman R. L. Wicks.

BELOW—Upper left: O. D. Wolfe, Marshalltown, left, receives king-sized gavel from Erling Larson, Jr., Davenport, for his service as chairman of the Iowa Medical Political Action Committee. **Middle:** Howard Hill, Minburn, recipient of the 1972 John F. Sanford Award, is shown with Mrs. Hill. **Right:** Rubin Flocks, Iowa City, left, president-elect of the IMS, chats with Donald Wood, Indianapolis, Indiana, a member of the Board of Trustees of the American Medical Association. **Lower left:** Members of Board of Directors of Scanlon Medical Foundation/Iowa Medical Society, seated, from left, L. H. Jacques, Iowa City, R. L. Wicks, Boone, and J. F. Paulson, Mason City. Standing, from left, G. L. Baker, Iowa City, Howard Hill, Minburn, J. H. Sunderbruch, Davenport, D. L. Taylor, Des Moines, L. J. O'Brien, Fort Dodge, R. V. Saf, Des Moines, and J. F. Bishop, Davenport. **Right:** W. C. Keettel, Iowa City, winner of the Ben T. Whitaker Award of the Interstate Postgraduate Medical Association of North America, is congratulated by L. W. Swanson, Mason City.



loo; **F. H. Top**, M.D., Iowa City; **L. W. Eller**, M.D., Kanawha; **G. J. Hruska**, M.D., Belmond and **A. F. Benetti**, M.D., Belmond. In attendance were 450 Leinbach-delivered individuals. Dr. Leinbach has lived in Belmond since 1916 except for time involved in medical training and military service.

Dr. Anthony Kelly, of Sioux City, was a guest speaker at the annual spring meeting of The Northwest Division of the Iowa Heart Association. Dr. Kelly spoke on artificial pacemakers.

Dr. John A. Koepke has been appointed vice-chairman of the Department of Pathology at The U. of I. College of Medicine. Dr. Koepke previously was the Medical Director of the Central Kentucky Blood Center. He has also served as a faculty member of the Colleges of Medicine, Dentistry and Allied Health at the University of Kentucky since 1961. Dr. Koepke received the M.D. degree at the University of Wisconsin and completed his internship and specialty training at Lutheran Hospital in Milwaukee, Wisconsin.

The following Iowa physicians have been granted fellowships in the American College of Physicians —**Dr. Joel D. Teigland**, of Des Moines, and **Drs. Vincent S. Aoki, Richard L. DeGowin, Gerald Disona**, and **Donald D. Heistad**, all of Iowa City.

Dr. Walter M. Block, medical director of the Child Evaluation Clinic in Cedar Rapids, discussed "Medical Aspects of Learning Disabilities in Children," at recent meetings of the Blackhawk and Linn County Chapters of the Iowa Association for Children With Learning Disabilities.

In conjunction with The U. of I. College of Medicine, the Wright County Medical Society recently hosted a Heart Day. Guest speakers were **Dr. Donald L. Warkentin**, associate professor of medicine in cardiology, and senior cardiac fellow, **Dr. William H. Oehlert**. They discussed EKG problems in acute myocardial infarction followed by drug therapy for rhythm disturbances and cardiac failure. Physicians from Hancock and Hamilton counties attended.

Dr. William E. Owen, of St. Ansgar, spent three weeks with Laymen's Overseas Service (LAOS) at a clinic on the island of Utila off the northern coast of Honduras. His son, **William R. Owen**, who will graduate from The U. of I. College of Medicine in May, was with Dr. Owen the last two weeks.



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'72 ANNUAL MEETING IN REVIEW—

ABOVE—Upper left: Reference Committee on Reports of Officers: Seated from left, J. E. McGill, Carroll, A. J. Havlik, Tama (Chairman), and Jack Moyers, Iowa City; Standing, A. L. Sciortino, Council Bluffs and C. R. Aschoff, Cedar Rapids. **Upper right:** Reference Committee on Articles of Incorporation & By-Laws: Standing, K. R. Swanson, Atlantic, M. E. Olsen, Minden, K. J. Judiesch, Iowa City, and J. C. Peterson, Hartley; Seated, R. S. Gerard, Waterloo (Chairman). **Lower left:** New IMS officers: Seated, from left, Trustees J. F. Bishop, Davenport, R. L. Wicks, Boone, and J. F. Paulson, Mason City; Standing, T. A. Burcham, Des Moines, Treasurer, Erling Larson, Jr., Davenport, Vice President, R. H. Flocks, Iowa City, President-elect, K. E. Lister, Ottumwa, President, and V. L. Schlaser, Des Moines, secretary. **Middle:** C. A. "Carl" Hoffman, AMA President-elect, addresses the House. **Right:** Re-elected District Councilors, from left, P. J. Monnig, Sioux City, J. M. Rhodes, Pocahontas, A. M. Dolan, Evansdale, and E. E. Gamet, Lamoni.

BELOW—Upper left: The L. J. O'Brien family turns out in numbers for Annual Banquet. **Upper right:** Reference Committee on Insurance and Medical Service: From left, W. R. Bliss, Ames (Chairman), Richard Schoonover, Bloomfield, J. L. Fatland, Des Moines, J. W. White, Dubuque, and C. D. Ellyson, Waterloo. **Lower left:** Reference Committee on Legislation and Miscellaneous Business: From left, D. J. Ottilie, Oelwein, C. L. Beye, Sioux City, R. K. Bunten, Des Moines, D. D. Morgan, Cedar Rapids, and T. E. Kiernan, Newton (Chairman). **Middle:** Retiring President L. J. O'Brien places presidential medallion on his successor, K. E. Lister. **Right:** H. R. Hirleman, Cedar Rapids, Program Chairman, left, confers with House Speaker L. D. Caraway, Amana.











Dr. Herbert Nelson, of Iowa City, was elected to the board of the Iowa Schizophrenia Association at its recent annual meeting in Marshalltown.

Dr. Francois M. Abboud, professor of internal medicine at The U. of I. College of Medicine, was named recently as recipient of the National Award for Experimental Therapeutics of the American Society for Pharmacology and Experimental Therapeutics. Dr. Abboud received a $2,000 honorarium and a bronze medal at a banquet for Society members attending an Atlantic City, New Jersey, meeting of the Federation of American Societies for Experimental Biology. Dr. Abboud is director of the Cardiovascular Division of The U. of I. Department of Internal Medicine and also is chief of cardiology at VA Hospital in Iowa City. The Award for Experimental Therapeutics is presented annually to a scientist under the age of 42 who has accomplished outstanding research in clinical pharmacology.

Dr. Chester McClure, of Decorah, was guest speaker at the annual meeting of the Tri-County Council on Alcoholism and Drugs held at the Allamakee County Courthouse.

Dr. J. H. Sunderbruch, of Davenport, has been re-elected president of the Iowa-Illinois Central District Medical Association. Other new association officers include **Dr. John Klein,** of Muscatine, historian; and **Dr. James Bishop,** of Davenport, editor of the association's bulletin.

Dr. Rubin H. Flocks, professor and head of urology at The U. of I. College of Medicine, recently received the 11th National Ferdinand C. Valentine Award of the Section on Urology of the New York Academy of Medicine. The award was presented to Dr. Flocks in New York at which time he presented the Valentine Memorial Lecture entitled, "Medical Education, Urologic Education, and the Delivery of Urologic Care."

Dr. John Keller, formerly on the radiology staff at The U. of I. College of Medicine, has joined the radiology staff at Mercy Hospital in Fort Dodge. A graduate of the Creighton University School of Medicine in Omaha, Dr. Keller completed his internship in San Francisco and his radiology residency at The U. of I. College of Medicine.

Dr. Franklin H. Top, emeritus professor and head of the Department of Preventive Medicine



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and Environmental Health, participated in the recent fifth International Congress of Rural Medicine in Varna, Bulgaria. Dr. Top is a past vice-president of the Congress and now an honorary president.

Dr. Regis Weland, of Cedar Rapids, discussed the latest report on cancer research at a meeting of Anamosa businessmen.

Dr. David L. Rater, an Ottumwa physician for almost 48 years, has retired from the active practice of medicine. Dr. Rater received the M.D. degree at Creighton School of Medicine in 1923, and served his internship at Creighton Memorial Hospital and St. Joseph Hospital in Ottumwa. Dr. Rater is a past president of the medical staff at Ottumwa Hospital and a member of the staff at St. Joseph Hospital.

Dr. R. J. Hassebroek, of Orange City, discussed venereal disease at a recent public meeting in the Maurice-Orange City High School Auditorium. The meeting was sponsored by the local Extension Service.

Dr. George Winokur, professor and head of psychiatry at The U. of I. College of Medicine, was recently named co-winner of a Hofheimer Prize for Research by the American Psychiatric Association. Hofheimer Prizes are presented annually to investigators for outstanding accomplishment in psychiatry and mental hygiene.

The following U. of I. College of Medicine faculty members presented papers at the eighth annual scientific meeting of the American Academy of Facial Plastic and Reconstructive Surgery, Inc. at Palm Beach, Florida, the end of April. **Dr. Leslie Bernstein,** professor and chairman of the Section on Maxillofacial-Plastic Surgery, presented a paper on "The Strategy of Facial Incisions," and "Early Submucous Resection of Nasal Septal Cartilage: A Pilot Study in Canine Pups." Dr. Bernstein was also program chairman of the meeting and chairman of the opening scientific sessions. **Dr. Charles J. Krause,** an assistant professor in the Department of Otolaryngology and Maxillofacial Surgery, presented a paper on "Forehead Island Flaps for Reconstructing Oral Defects," and served on a panel discussion "Standardization of Photographic Records in Facial Plastic Surgery." **Dr. Christian E. Radcliffe,** professor in the Department of Dermatology, presented a paper on "Dermatologic Surgical Procedures of Plastic Import," and **Dr. Mark V. Connelly** presented a paper together with **Dr. John E. Clemons,** of LaCrosse, Wisconsin, on "Replacement of a Totally Amputated Auricle."

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Dr. L. W. Swanson, of Mason City, was the guest speaker at a recent meeting of the Wright County Medical Society. Dr. Swanson's topic was "Common Allergic Problems."

Dr. Joseph Song, chief pathologist at Mercy Hospital in Des Moines, has received one of the first Rev. Dr. Martin Luther King, Jr. Medical Achievement Awards. Dr. Song was honored by the Southern Christian Leadership Conference for his research in sickle cell anemia. The award was presented to Dr. Song at a banquet at the Civic Center in Philadelphia, Pa.

Dr. Edward Hertko, of Des Moines, spoke on "What's New in Diabetes," at a recent Newton meeting of the Jasper County Diabetic Club.

Dr. Ed Laird will join **Drs. R. R. Hansen, K. H. Prescott**, and **W. M. Petty** in the practice of medicine at Storm Lake following completion of his internship at Broadlawns Hospital in Des Moines July 1. A native of Storm Lake, Dr. Laird received the M.D. degree at The U. of I. College of Medicine.

Dr. Gene Egli, a Fairfield physician, spoke on children and their health at a recent meeting of the Pekin Elementary School P.T.A. at Ollie.

Dr. Beryl Michaelson, of Dakota City, was elected to the Board of Directors of the North Central Iowa Mental Health Center at its annual meeting in Fort Dodge.

Dr. Edward F. Hagen, a Decorah physician for 44 years, has retired from the active practice of medicine. Dr. Hagen received the M.D. degree at The U. of I. College of Medicine in 1927. Following completion of his internship at General Hospital in Cincinnati, Ohio, Dr. Hagen established his medical practice in Decorah.

Dr. Glenn Van Roekel, of LeMars, has been appointed to the Floyd Valley Hospital Board of Trustees.

Dr. J. A. Cornish, of Storm Lake, has terminated his medical practice in Storm Lake and has relocated in Fort Myers, Florida. Dr. Cornish had practiced medicine in Storm Lake since 1950.

Dr. Paul From, a Des Moines physician, was guest speaker at the annual spring meeting of the Capital Division of the Iowa Heart Association, Inc., held in Osceola. Dr. From's talk was entitled, "New Hope for Painful Hearts," and dealt with services now being offered in Des Moines in connection with cardiovascular surgery and other heart cases.

Dr. F. W. Conley has joined the Marshalltown Medical Clinic in the practice of internal medicine. A native of Marshalltown, Dr. Conley received the M.D. degree at The U. of I. College of Medicine in 1943. He served his internship at St. Mary's Hospital in Duluth, Minnesota, and completed his residency in internal medicine at the Mayo Clinic in Rochester, Minnesota. Dr. Conley practiced medicine in Duluth, Minnesota, from 1949 until 1971 and for the past year in Phoenix, Arizona.

Dr. Howard Latourette, professor in the Department of Radiology at The U. of I. College of Medicine, discussed causes and cures of cancer at a recent public meeting in Colesburg. The event was sponsored by the American Cancer Society.

Dr. and Mrs. V. D. French, of Reinbeck, recently celebrated their 60th wedding anniversary. A graduate of Rush Medical College in Chicago, Dr. French practiced medicine in Carson for about 30 years. In 1952 he moved to Cedar Falls and was Student Health Director at U.N.I. until 1962.

Dr. John C. MacQueen, associate dean of The U. of I. College of Medicine and director of the State Services for Crippled Children and Oakdale Hospital; and **Dr. John R. Taylor**, assistant professor of neurology at The U. of I., were guest speakers at a recent postgraduate conference for physical therapists at The U. of I. Oakdale campus.

Dr. Robert D. Rowley, of Burlington, spoke on the health care delivery system at a recent meeting in Burlington of the Mid-Mississippi Valley Area Wide Health Planning Council.

Dr. Peter Mangawang will begin the general practice of medicine in DeWitt in July. Dr. Mangawang served his internship and a first year residency in internal medicine at St. Elizabeth Hospital, Elizabeth, New Jersey. His second year of residency in internal medicine was completed

at New Orleans, La., and his third year at Tucson, Arizona, Hospital Medical Education Center. At present Dr. Mangawang is completing a one year residency in general practice at Portsmouth, Virginia, General Hospital. He will be located in the new doctors' facility at the DeWitt Community Hospital.

Dr. Harry Brom, of Creston, is recovering from heart surgery in Dallas, Texas. Following a six to eight week recovery period, Dr. Brom plans to return to his practice at the Creston Medical Clinic. His present address is 2116 Trinidad, Dallas, Texas 75232.

Dr. Charles F. Johnson, assistant director of The U. of I. Child Development Clinic, spoke at the April meeting of the Black Hawk County Unitarian Universalist Society.

The following Ottumwa physicians have been named officers of the Wapello County Medical Society—**Dr. Warren H. DeKraay**, president; **Dr. John E. Rawls**, president-elect; **Dr. David W. Wetrich**, secretary-treasurer; **Dr. L. E. Coppoc**, and **Dr. R. P. Meyers**, delegates; and **Dr. D. O. Holman**, Dr. Meyers and **Dr. P. W. Scott**, trustees. At the May meeting of the Society, recognition was given to **Dr. Kenneth E. Lister**, who was recently installed as president of the Iowa Medical Society.

DEATHS

Dr. Harry P. Smith, 77, head of the Department of Pathology at The U. of I. College of Medicine from 1930 to 1945, died April 11 in Columbia, Missouri. A graduate of the University of California School of Medicine, Dr. Smith joined The U. of I. faculty in 1930 and served as head of pathology until being named to a similar post at the Columbia University (N.Y.) College of Physicians and Surgeons in 1945. After retirement from Columbia University in 1960, Dr. Smith was appointed chief research librarian for the Society of Clinical Pathologists in Chicago. In 1970, he became a consultant in pathology at the University of Missouri College of Medicine. He received the national Burdick Award for outstanding research from the American Society of Clinical Pathology in 1941 and served as president of the Society in 1957-1958.

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Concomitant use: Is used as adjunctive antianxiety therapy concomitantly with certain specific medications of other classes of drugs, such as cardiac glycosides, antihypertensive agents, diuretics and vasodilators.

in relief of clinically significant anxiety

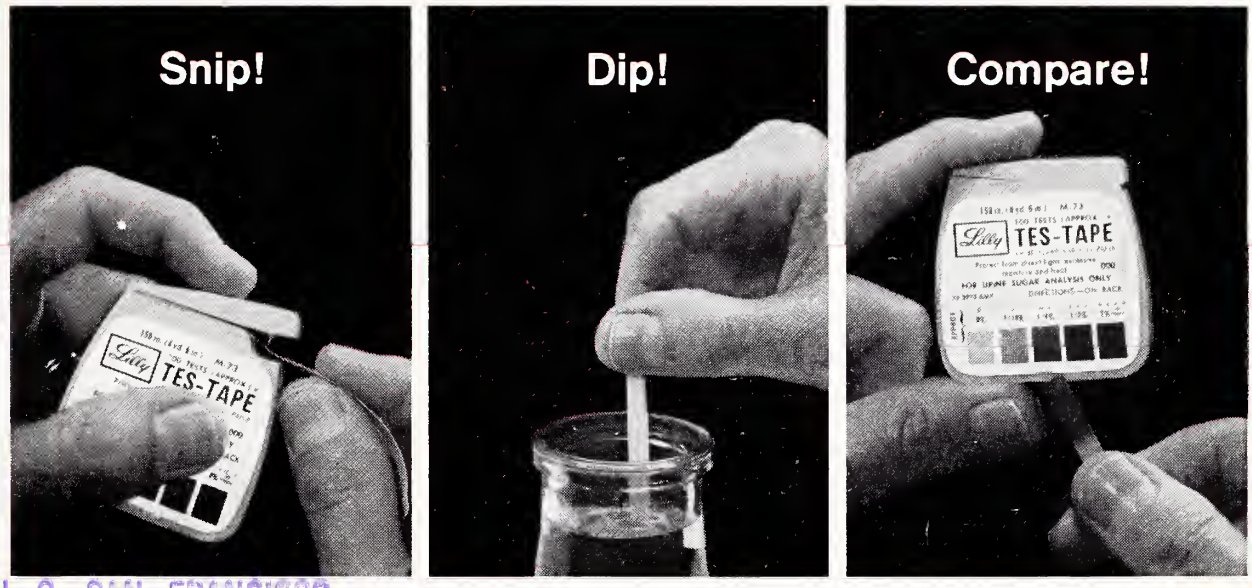
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Contraindications: Patients with known hypersensitivity to the drug.
Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards.
Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.
Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.
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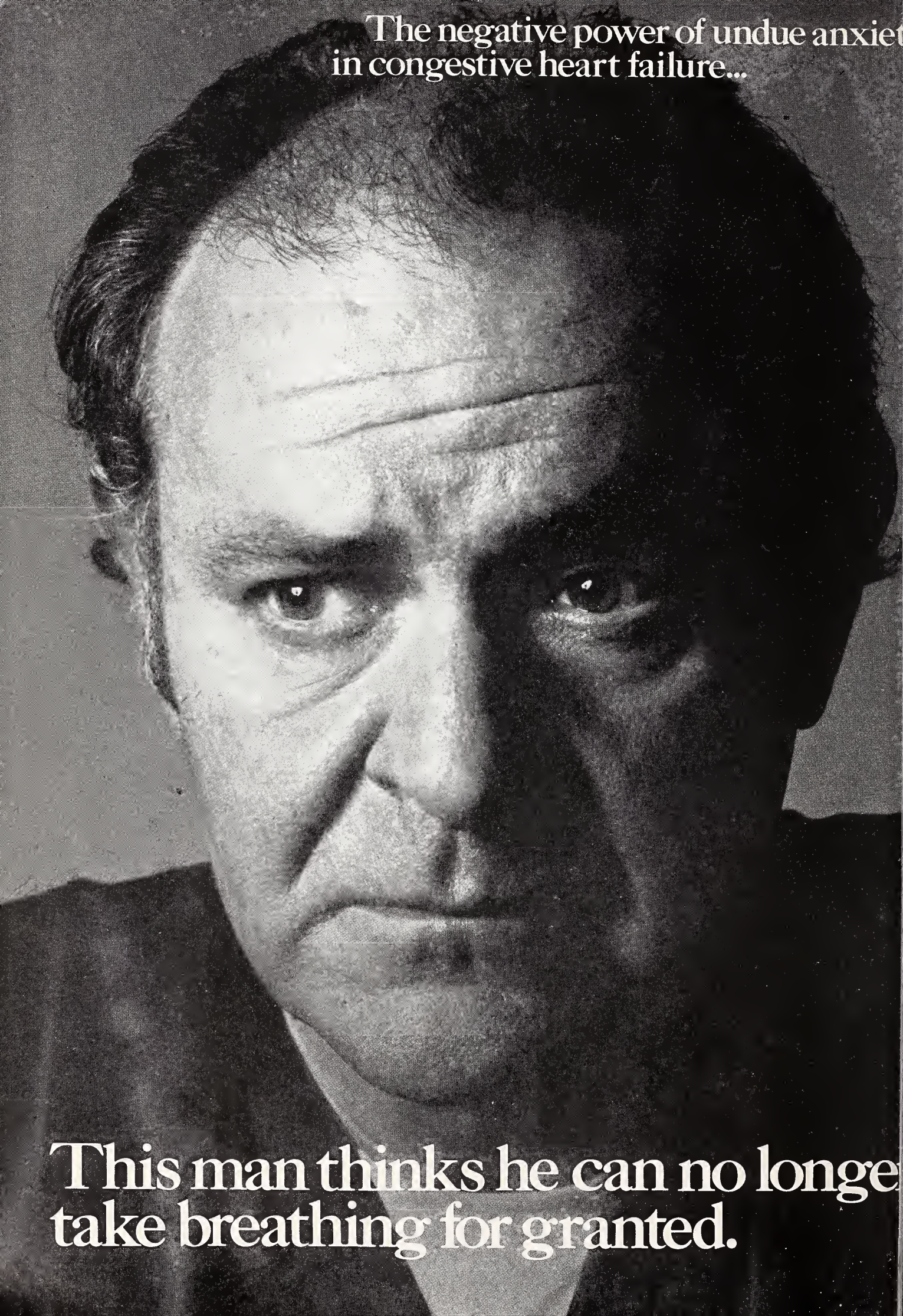
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• House of Delegates Proceedings— Page 337
• AMA President on Malpractice— Page 331
• Plea for Knowledgeable Involvement— Page 324

JULY 1972


The negative power of undue anxiet
in congestive heart failure...
This man thinks he can no longe
take breathing for granted.

Typical of many patients with congestive heart failure, he also suffers from severe anxiety, a psychic factor that may influence the character and degree of his symptoms, such as dyspnea. His apprehension may also deprive him of the emotional calm so important in maintenance therapy.

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Specific medical and environmental measures are often enhanced by the antianxiety action of adjunctive Libritabs (chlordiazepoxide). Libritabs can also facilitate treatment of the tense convalescent patient until antianxiety therapy is no longer required. Whereas in geriatrics the *usual daily dosage* is 5 mg two to four times daily, the *initial dosage* in elderly and debilitated patients should be limited to 10 mg or less per day, adjusting as needed and tolerated.

Concomitant use with primary agents

Libritabs is used concomitantly with certain specific medications of other classes of drugs, such as cardiac glycosides, diuretics, antihypertensives, vasodilators and oral anticoagulants, whenever excessive anxiety or emotional tension adversely affects the clinical condition or response to therapy. Although clinical studies have not established a cause and effect relationship, physicians should be aware that variable effects on blood coagulation have been reported very rarely in patients receiving oral anticoagulants and chlordiazepoxide HCl.

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Indications: Indicated when anxiety, tension and apprehension are significant components of the clinical profile.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards.

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t.i.d./q.i.d.
up to 100 mg daily

for severe anxiety accompanying congestive heart failure

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President's Address

Knowledgeable Involvement Is Essential

L. J. O'BRIEN, M.D.
Fort Dodge

ANNUAL MEETINGS are appropriate occasions for taking stock. They provide an opportunity to reflect on the past. We can measure what is occurring right now; we can look ahead to what tomorrow may offer. This is a healthy exercise, evaluating the past in an effort to forecast the future. The controversial issues of the day must be examined in some depth.

The last decade has seen a gradual shift in medical and health care decision-making from the individual physician to the state and federal legislative levels. The framework in which medicine is practiced is changing. In order for us to exert our influence presently and in the future we have to (1) become involved in the legislative processes and (2) become knowledgeable and influential in the affairs of government. Every day each of us is affected by decisions made in the legislative hall.

With billions of dollars coming available through governmental and private sources for the maintenance of medical and health care, more and more individuals have become interested in the subject. Certain individuals are attempting to impose their ideas as to what the practice of medicine should be, and some may even be employing their talents for self-gain, to what may well be the detriment of the physician and patient. Physicians must become more concerned and informed regarding the economic and fiscal integrity of medicine. This responsibility must not be turned over to others. There is a key phrase which belongs in this kind of discussion and it's *knowledgeable involvement.* The economic and fiscal integrity of medical care delivery will deteriorate unless there is energetic involvement by interested and informed physicians. Clinic managers, insurance executives and others have their important duties to perform but their function should largely be supportive of the medical profession as it seeks to lead in providing the medical and health care services desired so strongly by the patient.

Let's consider the legislative area. Constant vigilance is mandatory if we are to be aware of any changes that might be thought of, if we are to support ideas to increase the quality of medical care to patients, or if we are to oppose concepts detrimental to the quality care of patients or threatening to physicians' judgment and integrity. When neither the patient nor the physician can be harmed by proposed changes in a law, a neutral posture should be assumed. We must be fully aware of any bill which will have a profound effect upon the quality of medicine for the patient and physician.

Our Legislative Committee is one of the most important committees of the Iowa Medical Society. It must watch over and implement legislative policies established by our Society. The Committee's day to day decisions on legislative measures are based on policies established by the House of Delegates. Thus the House becomes the profession's most important instrument in determining those policies by which the Legislative and other committees must be guided.

We are now witnessing contesting interpretations of the health maintenance organization concept. The outcome of this contest will vitally affect the manner of delivering health care, the payment for health care, the attitude of patients toward health care, as well as the position of

This address was delivered by Dr. O'Brien on April 25 during the General Sessions of the 1972 Annual Meeting of the Iowa Medical Society.

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physicians for many years to come. It behooves every physician to become knowledgeable, so as to be able to judge intelligently changing attitudes towards the health maintenance organization. Those of us who have been in practice for many years have an obligation to impress upon those who follow us the horrendous changes which are represented in the health maintenance organization. Physicians who have many years of practice remaining should be particularly concerned about the methods of delivery of medical care, the distribution of medical care and the ability of consumers and patients to acquire adequate care throughout Iowa. These physicians should be at the forefront in evaluating the gargantuan proposals to alter the national health care system.

AGGRESSIVE POSTURE

As one looks down the corridor to the future, the grayness is not penetrated, nor does one see a beckoning light at the end. Through it all we have to maintain an aggressive posture so the organized profession can continue to be the spokesman for medicine. The complexities of present-day medical practice should not deter us from making as great an effort as possible to maintain ourselves as the leaders in the health field. One abiding concern from the past and for the future is the increasing demands by individuals who have little knowledge of the actual delivery and financing of health care. Their influence and involvement on boards and councils is not decried but these individuals should not comprise the majority on a decision-making body in the medical field.

The effectiveness of planning at the community level will influence the future pattern of health care delivery. A physician is in the position to exert a direct influence on a community health care delivery system. To be regarded as a leader and to be respected, each physician should devote more attention to his relationships with other health professionals.

Obviously, the elected leadership of the Medical Society has an additional obligation to be well informed. The leadership of your Society cuts across all physician lines, to involve practitioners, teachers, researchers, governmental employees and administrators. These officers have perhaps the best opportunity to view the broad health care scene and to become familiar with the important developments which affect the profession. In addition to the expertise which the officers are able to build up, the Society's administrative staff also has opportunity to acquire and assimilate much information and to utilize it in a supportive manner. With many years' experience represented on the staff, we have a hard-to-equal reservoir of sound understanding and reinforcement to turn to in dealing with the vital issues of the day. The staff's daily contact with other health providers and organizations, with insurance executives, with hospital officials and with governmental administrators affords it a unique opportunity to identify matters of high priority.

An attitude or posture of the IMS may be at variance with what you as an individual may adopt. Occasionally, individual positional hardships are created for us. Unfortunately, some not only adversely criticize an organization, but occasionally may drop from membership because they fail to agree with certain ideas which have been promulgated by the majority in the organization. The attitude of the IMS may not correspond with our personal wishes and desires all of the time so that our own personal preferences have to be sublimated in these instances.

It has previously been stated that all segments of medicine require amalgamation and melding. The problems facing us today must be sorted out, mulled over and effective steps taken to implement those that are for the good of patients and the good of medicine. Researchers must not be separated from practitioners; teachers must not be isolated from those providing patient care; students must be exposed to the entire spectrum of medicine and should have the opportunity to judge it through intimate and continued association with those delivering medical care. The challenge to every physician is to view with openness the evolutionary (not revolutionary) nature of health care and to ward off the fragmentation syndrome which nudges itself forward.

Let me comment briefly about attitudinal position. Attitudinal change suggests that a new dimension in medical care is appearing in our complex society. Individually, attitudinal change must be thought over, ruminated about

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so as to allow steady maturation and development.

Why should you and I bother about attitudinal change? Traditionally, our profession has enjoyed many freedoms and has offered many choices. Hopefully, these have been exercised over the generations with understanding, compassion and fortitude, and have increased the quality of care to our patients. Freely we have chosen a long training period in the sciences, and, hopefully, in the humanities. Physicians have been free to decide on a state, city and town in whch to practice, have set up standards for licensure, have established qualifications for specialization, have determined the requirements for admission to the hospital, and have democratically established the policies of our Medical Society. So we are heir to many benefits without contract and have freedom of franchise.

What are some of the many factors in attitudinal position? Medicine's voice is being heard, is being listened to, and is providing effective and acceptable counsel in the present administration and in the higher echelons of Health Education and Welfare. Realistically, the thoughts evolved do not always have our approval, but the decisions on medical care would have been much worse had medicine's voice been completely ignored.

The Medical Society finds itself expressing concern regularly over national and local media reports on socio-economic aspects of medical care delivery. A recent article headlining and ballyhooing over-charges of physicians is an example. This did discredit to both the administrators of Medicare and Medicaid and to the medical profession. This report misinterpreted the definition of reasonable and labelled any charge above the artificial Medicare reasonable charge as an overcharge. Believing this reporting to be totally misleading, the Society spent considerable time in contact with the American Medical Association and National Blue Shield to evaluate the news account. In the end, an editorial headlined, "Unfair To Doctors," was presented. It served perhaps as an aid in helping the discerning reader to understand the matter. Even so, the damage done by the initial story still remained essentially intact.

In thinking about attitudinal changes, let us remember the public wants a one-to-one relationship between physician and patient. This means one patient, one doctor. The patient wants to relate to an individual physician. Physicians, however, need also to be concerned with the community in which they live and in which their patients earn their livelihood. Population medicine and personal medicine must be promoted without destruction of the one doctor, one patient relationship. We must realize that many of our problems are basic to societal, environmental and institutional factors.

What is the end point for failure to recognize attitudinal changes? Insulating ourselves against recognition, discussion and evaluation of attitudinal changes will lead to self-destruction of the medical profession. We have to recognize, as far as humanly possible, the nucleus of self-destruction in directing our own affairs and in directing our affairs as citizens. Attitudinal change must be distinguished from self-interest. Failure to do so will lead to our own destruction because in our democratic society the public interest will prevail. In self-interest, for example, we cannot take parts of each automobile that appeals to us and assemble them; this obviously is impossible. Our self-interest is sublimated to the public interest in the assembly of cars. So we must earmark those factors in medicine that represent self-determination, and separate them from those that engender only self-interest.

IMMEDIATE ATTENTION

What are some of the matters that require our immediate attention? Immediate concerns relate to the availability of medical services, so that there is adequate health manpower, including physicians, nurses, technicians, administrators and all other ancillary medical help. These human resources will need to be distributed in an equitable manner.

Let me put before you a series of questions so you and your society can evolve answers as time passes. Should every town of 1,000 or less have a resident practitioner? Is this only a convenience and luxury for the residents of the small town? Or is it a viable demand on the part of rural and small town residents? Should individual physicians, the medical society and local citizens encourage the development of primary, secondary and tertiary care in the various communities of Iowa? Should satellite outposts be set up in small communities with

modern conveniences and modern communications, including closed circuit television, with a clinical physician's assistant on duty, having immediate access to a physician? What is the role of adequate, rapid and safe transportation so that everyone in Iowa has available all levels of care within reasonable time?

(To this latter question we may give a partial answer because transportation in Iowa has been measured in miles, but it has to be equated with time. Maybe it is our individual and collective responsibility to see to it that the legislators and highway commission provide Iowans an increased ability to travel greater distances for adequate medical care in less time. Through rapid transportation, cars and ambulances, adequate medical care can be as available to Iowans in rural areas as to inhabitants in a metropolitan complex. Constant efforts must be exerted to improve all transportation elements within the State, so as to make transit to medical facilities rapid and safe.

VIGOROUS EFFORT

What must we do? The problems must be mulled over, sorted out and the goals vigorously pursued with our medical house being put deliberately, but promptly, in order. The alternative to this is a constrained or programmed society with an uprooting of the existing delivery system; all the goals and objectives which have been attained over the past years need not be discarded for theoretical concepts which have not been tested in our own societal complexities. Geographic, financial and societal circumstances influence the multifacted problems of health care. An evaluation must be undertaken of methods which have proved successful in the past. Improvement on the traditional patterns of medical care must be measured against totally new methods and new techniques. The recent opening of the model rural health clinic at Oakdale is a great step forward. The clinical techniques and methodology used there may eventually be transferred to other locations. Along with the rights of the profession to remain free we must recognize the co-equal right of patients to have access to adequate, proper and acceptable medical care.

Medical and health equity has much to commend it, as it expresses the co-equal rights of physicians to those of patients. Medical and health equity implies a proper balance among all men with the least infringement on the rights of all.

World equity was born some time after World War II when the economic and industrial inequities existing amongst the people of the world began to be questioned. Programs to provide industrial and fiscal progress were set in motion. In our country industrial inequity is now recognized.

(On a large scale this is illustrated in the San Francisco Bay area, where 50% of the area was filled in for industrial purposes without regard to the public interest. A fight resulted when the public interest began to see that an equity must exist between public good and industrial desires. This has led to greater involvement by the public in industrial expansion, not only in the Bay area but generally throughout the nation.)

In some Iowa cities, deterioration of residential, business and industrial establishments, over-crowding of people, ethnic problems and neglect of homes have resulted in the build up of real or alleged grievances and demands. On the whole, however, health equity in Iowa has been maintained. The problem of access to medical care, however, is an ever present difficulty due to the shifts in population.

Medical integrity is also tied up with the concepts of prepayment medicine. Other states with varied economic bases and other laws have entered into different types of prepayment programs. The Iowa Medical Society, as you know, is resisting change in prepayment medicine to allow non-medical groups to hire physicians on an employer-employee relationship.

Let me now return to additional questions. How long will it take to have some answers to questions fundamental to prepayment which involve patient reaction, quality of medical care and fiscal integrity? Will public interests say that all medical and health services must be subsidized from general funds? Will public interests disregard the demand that medical costs be paid for only by direct assignment of the cost for these services? Do patients feel that the shifting of the burden of payment to taxation will really give them relief from the escalating costs of medical and health care? How can preventive medicine be practiced in our present milieu and in the prepayment

environment? Where is there additional preventive medicine? Have routine physical, laboratory and x-ray examinations been effective in reducing disease in any segment of our population beyond that which a similarly intelligent and socio-economic group enjoys? Is the prepayment approach costly in dollars and wasteful in professional services? How effective is multi-phasic screening?

Although an individual is but a small part of an organization, that individual's influence, thoughts and philosophies must be listened to, respected and evaluated. The offices of the Iowa Medical Society represent a challenge. Each officer knows that inadequate responses and inappropriate reactions certainly have occurred. The solutions to problems have not always been to your liking or to my personal desires. Let me say finally that, hopefully, some of the problems besetting the Iowa Medical Society have been successfully engaged; hopefully, that the practice of medicine is just a little bit better because of the efforts of organized medicine during the past year; and, hopefully, that the complex problems of medicine will be intelligently approached and satisfactorily resolved as the years go on. Certainly medicine needs leadership, not only amongst those who are enthusiastically entering practice but those who speak with the wisdom of years.

If many questions have been raised in your mind in these few minutes, if most of them are incompletely answered, if they have stimulated you to approach medical problems with an open mind, my mission has been accomplished.

Inaugural Remarks

K. E. LISTER, M.D.
Ottumwa

YOU HAVE BEEN a most industrious and indulgent House this morning. My remarks will be extremely brief so you may be on your way home.

It is a very humbling experience to accept this high office, and I do so with the utmost gratitude to you, my friends, for having elected me to serve as your President.

I think you all know over the past several years I have demonstrated my interest in the affairs of the Iowa Medical Society, and I can promise you this interest will continue. I am not going to present any specific program for the coming year. Because of your incomparable staff and the diligence of your officers, we have set forth on many, many programs which will require some consolidation. Thus I would hope this year we might utilize the time to consolidate and improve the programs we already have in progress.

I would also like to see us heal a few wounds that have been created in the last year, and I feel sure this can be accomplished.

Changes in the practice of medicine are occurring so rapidly and are of such consequence that your officers must make decisions. I would beg you to maintain your confidence in the integrity of your elected officers, because they are doing what they feel you would require of them.

I have one other acknowledgment to make. I am sure this is going to embarrass her, because I see her sitting in the back, but I would like to thank my wife for indulging me in terms of the time which is required to accomplish the work at hand and to complete my task as your President.

I would also like to acknowledge three partners who are giving generously of their time to allow me to do this work.

Again, I thank you very much for the honor of this office. I think I feel somewhat differently than you. I am sure you think you have elected a President. As far as I am concerned, I am serving as your spokesman and your servant, and I am available to any person or any group for the rest of this year.

I wish you all good luck. Have a safe trip home.

K. E. Lister, M.D., presented these brief remarks April 26, 1972 following his installation as President of the Iowa Medical Society.

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On Professional Liability

C. A. HOFFMAN, M.D.
Huntington, West Virginia

LET ME GO BACK three years to the professional liability situation as we saw it then. In West Virginia we could not get an insurance carrier to talk to us about professional liability insurance. I recall well a meeting about three years ago with two urologists. Both had been canceled by a large company which carried most of the insurance in our state, neither cancellation was justified when I looked into it. I was able to get them coverage after a great deal of difficulty through the American Urological Association-sponsored program.

At the same time there was another member, who had been an alcoholic years ago. He had never been sued. His coverage was dropped because he was a member of Alcoholics Anonymous. He hadn't had a drink for many years; had never been sued. His coverage was dropped for no reason at all. I talked with the insurance company representative at that time, and he had no answer.

About that time a situation developed in Honolulu where the doctors found themselves without coverage because one insurance company sold out to another company that did not want to underwrite a surgical specialty.

Alaska had no coverage at that time. Doctors were leaving because no one could get coverage. It was futile to even talk to an insurance man about the problem. All the time the premiums were going up and up.

I brought this before the AMA Board of Trustees and a committee was formed about two years ago now. Three members of the Board of Trustees and two members of the House of Delegates were appointed to this committee. Our first two meetings were quite discouraging. We broke the ice after we had met three or four times. We had a meeting with about 10 representatives of large insurance carriers. We said, "We only have two and one-half hours to get the job done. I don't want to be called 'Mr. Chairman'; I want to be called by my first name. Let's get this job done." Fortunately, we did. We had a meeting of the minds all at once.

We had approached the professional liability problems of the AMA from three different points of view. No. 1, of course, we have started our data collection, which is working. Secondly, we have gone into the legislative aspects of the problem. There is an AMA folder which sets forth recommendations in this area. You can obtain it from the AMA. The Field Service worked very diligently to develop recommended legislative changes and to get them to the various medical society legislative committees across the country. These changes in the statutory language are considered very important in the minds of most of our insurance carriers. Many new state laws have already been passed. I am sure your Legislative Committee has this information available.

I would like to suggest you work with your state legislators to change the climate as much as possible. There are about 10 or 12 legislative possibilities which will help to change the malpractice picture.

Thirdly, we have tried to develop a program

This is an edited version of remarks made to the 1972 Iowa Medical Society House of Delegates by C. A. Hoffman, M.D., Huntington, West Virginia. At the time of their delivery in April, Dr. Hoffman was President-elect of the American Medical Association. He was installed as President of the AMA in June. Dr. Hoffman is a member of the National Commission on Professional Liability.

for the physicians of the country. We have had a great deal of trouble. We had a year of frustrating wheel-spinning. Finally, we did develop a program with CNA, with which you are probably familiar. Continental has only gone into one state, Oregon, also one county, San Diego County, California. But the interesting thing is, regardless of how quickly this CNA program has been accepted, the climate has completely changed. In West Virginia, for instance, we could not previously even talk to a carrier. Now we have three carriers coming to us with programs, trying to sell us on them, and I think we are going to take Aetna. I have been Chairman of the Insurance Committee for years in West Virginia.

I was talking recently to one of the insurance carriers about the question of sponsored programs. At the present time 25 states have sponsored programs, and other states are working on the possibility. I think there are many benefits. First of all, if a state association has a sponsored program, you have a very close working relationship with the company through the insurance committee, or whatever you call it. So, if you have a problem over one individual case, you have somebody to call upon. Believe me, this is important.

NEED STRONG COMMITTEE

If you have a good, strong insurance committee, with sufficient fortitude to say, "Dr. So-and-so is not a good insurance risk, he should not be covered, but So-and-so should be covered and you are not covering him," you will find, after a short time, you will develop a certain rapport with your insurance carrier, so that your problems will diminish a great deal.

Also, you have a chance to talk with the company officials about premium structure. You have a chance to get facts, what has happened in the last five, six, or 10 years; who has been sued; what claims have come up.

The odds, in my opinion, very much favor a state-sponsored program. This is the trend over the country. Some of the opposing arguments have to do with competition. The larger carriers have sponsored programs. St. Paul has several in the South. Travelers has several, with a possibility of others. They have the American Mutual in California and Aetna in Connecticut. Really, it is not a question of cutting out competition. A great majority of these carriers have sponsored programs and work in a spirit of competition to place them. New York State, of course, has worked beautifully for 21 years. There is very close rapport between both the state association and the company.

AMA EFFORTS PAY OFF

It has been worth our AMA dues alone to see the malpractice situation completely changed; this has been primarily through the efforts of the American Medical Association. I think we owe a great debt to the Continental, even though I haven't always agreed with them. I don't know how far they are going to go. They have been a terrific weapon for us to use—and we owe them a debt for opening the market.

I am convinced in my own mind that some of the insurance carriers are doing pretty well with their malpractice coverages. I don't think it is all as bleak as they would like us to believe. Suddenly they are finding they want some of the business and, on another front, they would like to keep government out of it.

About the time we started the Continental program, the Commission on Professional Liability was named by the President. The charge was to determine if professional liability is contributing significantly to the rising cost of medical care. We have been together for about a year. We were very late in getting started. They had trouble finding a chairman and executive director. Our report deadline is December 31.

The commission has 21 members. We have members from the legal profession. We have dentists. We have five physicians, not all practicing physicians, because one represents the pharmaceutical industry. We have another physician who is the chairman of the Cleveland Clinic board. But we have five physicians. We have three insurance men, one from a mutual fund, one from a stock fund and one from the reinsurance fund. We have six public members, and about half of these are lawyers. We actually have many more lawyers on that commission than we have doctors. One member is the immediate past president of the Ameri-

can Trial Lawyers Association, and he is one of the public members.

We have $2 million to spend; we have a million and one-half to spend for study and a half million to spend for our commission hearings.

Also, there are four panels, 14 members on each. One on insurance, one on health, one on consumerism, and one on legal medicine. They are really just getting going at this particular time.

Our work to date has been primarily data gathering in nature. We have had six hearings: in New Orleans, Los Angeles, New York, Cincinnati, Washington, and Denver.

TWO-DAY HEARINGS

These hearings are open and last two days. Through them we are trying to get facts which have been so elusive; there has been so little exchange of information with the insurance companies, so little is known about the medical societies, what their members have done. It was amazing to hear in Cleveland, Ohio, they had no knowledge of the number of claims against the members. It is unbelievable, so much talk and so little information.

Actually, the real problem today is getting facts, to see what we can come up with. The challenge will be the development of our report. I, for example, will never be able to agree with the man who made the statement that we should have more malpractice suits because it improves the quality of medical care. When you have a difference of opinion, my opinion and his opinion, there are some problems. I think we will accomplish something. I hope there will not be a minority report but, if there is, the American Medical Association will have great support, I can tell you, from the insurance representatives on this commission. There is also support from those who represent the law and from the dentists and the osteopathic physicians, by the way, and we have some support definitely from the consumers, from the nurses. I hope we can come up with something.

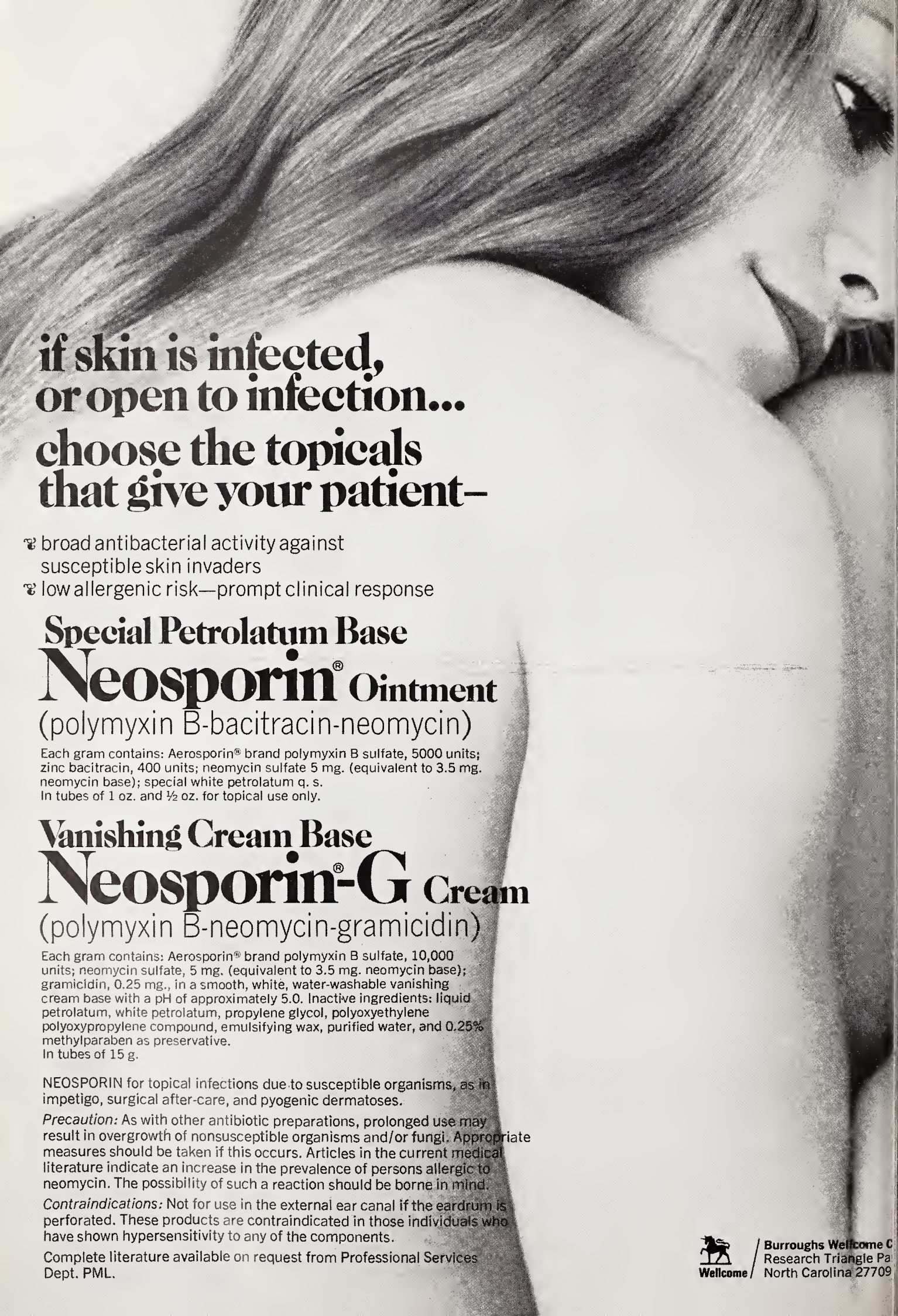
I would like to describe the commission hearings. Before these hearings we have had doctors; we have had administrators; we have had insurance men, consumers with stories of how they were abused. We have had trial lawyers. We have had so much information brought to us it is now a question of seeing where we stand. What have been some of the points of particular interest? In the first place, the trial lawyers have strong views on the medical profession and the quality of medicine. I am not allowed to report that which is confidential but these observations are based on public hearings. Two reports interested me very much. To show how this thing goes, let's take Louisiana which has a program with St. Paul. They have kept very, very careful records. From 1962 to 1970, an eight-year period, they had 63 claims. In that period they paid $6,608,000 in premiums. Out of the 63 claims which were settled or fought, or something, a little less than $250,000 was paid for defense attorneys' costs, defense costs. About the same amount, about $241,000, was paid out over the eight-year period for plaintiffs and their attorneys. There is a lot of money in between some place. Where it is I don't know. But what also is very interesting to me is the fact they even followed it down further and found only 12 per cent had gone into the plaintiffs' pockets—12 per cent really into the pockets of the persons who were injured.

In Florida they didn't have quite as good statistics. In a five-year period, not as carefully worked out, they had 17 per cent in the plaintiffs' pockets.

NEW YORK PROGRAM

On the other side of the spectrum, in New York State—and, of course, this is a terrific plan, and I believe their figures, for I have great respect for the men in New York and for the insurance company that covers them—they paid out 84 per cent, according to statistics, to plaintiffs and their attorneys. There is a big difference. I admit we are talking about a great deal more money in a state which has a high incidence of claims.

There is another interesting point which has not come before the commission. I am a member of the Liaison Committee to the American Bar Association, and we had a meeting in Florida. I attended for two and one-half days a meeting on legal methods put on by the University of Miami Law School. We had lawyers, defense attorneys. One story from this meeting



if skin is infected, or open to infection... choose the topicals that give your patient–

- broad antibacterial activity against susceptible skin invaders
- low allergenic risk—prompt clinical response

Special Petrolatum Base Neosporin® Ointment

(polymyxin B-bacitracin-neomycin)

Each gram contains: Aerosporin® brand polymyxin B sulfate, 5000 units; zinc bacitracin, 400 units; neomycin sulfate 5 mg. (equivalent to 3.5 mg. neomycin base); special white petrolatum q. s.
In tubes of 1 oz. and ½ oz. for topical use only.

Vanishing Cream Base Neosporin®-G Cream

(polymyxin B-neomycin-gramicidin)

Each gram contains: Aerosporin® brand polymyxin B sulfate, 10,000 units; neomycin sulfate, 5 mg. (equivalent to 3.5 mg. neomycin base); gramicidin, 0.25 mg., in a smooth, white, water-washable vanishing cream base with a pH of approximately 5.0. Inactive ingredients: liquid petrolatum, white petrolatum, propylene glycol, polyoxyethylene polyoxypropylene compound, emulsifying wax, purified water, and 0.25% methylparaben as preservative.
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NEOSPORIN for topical infections due to susceptible organisms, as in impetigo, surgical after-care, and pyogenic dermatoses.

Precaution: As with other antibiotic preparations, prolonged use may result in overgrowth of nonsusceptible organisms and/or fungi. Appropriate measures should be taken if this occurs. Articles in the current medical literature indicate an increase in the prevalence of persons allergic to neomycin. The possibility of such a reaction should be borne in mind.

Contraindications: Not for use in the external ear canal if the eardrum is perforated. These products are contraindicated in those individuals who have shown hypersensitivity to any of the components.

Complete literature available on request from Professional Services Dept. PML.

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North Carolina 27709

is worth telling. It shows to what extent people will go. This man told the group of 200 people of a case that happened six years ago where a woman had a hemorrhoidectomy, and two days later, she became cyanotic. She was discharged with a diagnosis of encephalitis. The woman was taken care of by her mother. There was one lawyer who handled the case for one and one-half years. This lawyer took it over. He said he worked on it for a year. He felt he had a very condensed way of handling the charts. He said she had a bad result, somebody had to be at fault. This was his thinking, that somebody had to be at fault.

He made a trip to San Francisco; he made a trip to New York. He went to 10 physicians in the country, outstanding physicians, and nowhere on the chart could they find anything wrong. He even went to the hospital thinking maybe the instruments had not been sterilized. He ran up against a blank wall. He was sitting on the floor of his bedroom looking over the charts, and he happened to notice the woman had been given nembutal the night before, and had been given nembutal at the time of surgery.

The same night the nurse had called the physician and said the patient had pain, and the records showed the nurse had awakened the patient to give her a shot, whatever it was. Anyway, this was it; this had to be drugs. He built up a case. He even had a specialist come down from Chicago to testify. They went before a jury, and the jury threw it out—no case. They went before the appellate court, and it was thrown out. He went before the supreme court and a judgment was given, and an award for $1,900,000.

The money was put in the bank. But as it came out later in the newspaper, though the woman was awarded that amount, she had only received $61,000. She was unhappy because she didn't have the money to pay for the physiotherapy. They looked into it and found that the money was given to a bank to be held in trust, to be paid out so much over the period of her lifetime. The bank got $4,000 a year for handling it; the lawyer for the bank got $4,000 a year for handling the trust. The lawyer in the meantime, while the patient was getting $61.000, had gotten $150,000. This came out in the newspaper.

The reason I cite this, it shows to what extent some lawyers will go, and believe me they are clever.

Let me say a word about the contingency fee. This is here to stay. It is my personal feeling the contingency fee is here to stay unless some national legislation alters the sytem. As you know, one part of the HMO Bill calls for arbitration for any patient who benefits from government money. I have talked to defense lawyers all over the country and they all agree the contingency fee is here to stay.

In the first place, in our state legislatures there are many lawyers, and in Congress and the Senate, even though they are not practicing, they have their colleagues back home. So, I don't think we can get away from the contingency fee. Even though we have legal aid societies, I think it is going to be here as long as anyone here in this room is going to be alive.

I do think there are areas where we can improve, an example happened in New Jersey. The New Jersey Supreme Court about six weeks ago ruled that a lawyer could only receive contingency fees on a graduated scale; in other words, for $10,000 it may be 50 per cent, and it becomes less, and anything over $100,000 is 10 per cent. I think something like this, if we can hold to it, will be good. There is a suit being brought before the Supreme Court by members of the New Jersey Trial Lawyers Association to have this thrown out.

SCREENING PANELS

Panel systems are active in about 25 different states and counties. In these lawyers and doctors will hear cases on malpractice. Most insurance companies are against this—not all of them; many are opposed because they feel if you do this, the defense lawyers and the physicians are putting all of their cards before the plaintiff; we are thus at a disadvantage if the ruling is not binding. The system in New York City seems to be fine but the only binding arbitration is in California.

We are looking at "no fault" insurance, and that has possibilities. Here a man or woman going into a hospital takes out insurance as they would flight insurance; a great majority of claims occur, of course, in hospitals.

The main point is that we are thinking and talking about the problems. We are bringing out the facts. As we do this, I have a very strong feeling we are going to solve the problems.

President's Page



We talk a lot about lack of communication. Most agree it is a real culprit, a builder of unbelievable barriers. Minor misunderstandings can reach major proportion when the parties involved close down the communications lines. Solutions, compromises, acceptable new directions generally evolve when these lines are kept open.

In a recent conference with a paramedical group, four committee members arrived certain that a meeting of the minds was impossible. Contrary to their initial belief, after two hours of full discussion all of the problems were amicably settled.

Many of the goals of the medical profession can be attained if we communicate with each other. Few will be achieved if we intentionally close our ears and minds to the issues.

Obviously, you won't like everything you hear. But my plea is this—maintain an open mind and allow others to communicate with you.

B Eberle, MD

President

OFFICIAL PROCEEDINGS

1972 HOUSE OF DELEGATES
APRIL 23-26, 1972
DES MOINES, IOWA

(Alphabetical Index—Page 398)

SUNDAY SESSION, April 23, 1972

The House of Delegates of the Iowa Medical Society was called to order by the Speaker, L. D. Caraway, M.D., of Amana, at 9:05 a.m., Sunday, April 23. The House approved the taking of attendance by signed registration cards. There were 102 delegates, 10 voting alternates and 20 ex-officio members present.

COUNTY	DELEGATE
Adams	C. L. Bain
	(Alternate)
Allamakee	R. H. Palmer
Appanoose	E. A. Larsen
Audubon	L. E. Jensen
Black Hawk	C. D. Ellyson
	D. E. Conklin
	Fred Dick, Jr.
	G. R. Clark
	R. S. Gerard, III
Boone	E. E. Linder
Bremer	V. H. Carstensen
Buchanan	L. J. Flage
Butler	F. A. Rolfs
Calhoun	R. P. Ferguson
Carroll	J. E. McGill
Cass	K. R. Swanson
Cerro Gordo	W. V. Wulfekuhler
	G. H. West, Jr.
	(Alternate)
	R. M. Powell
	(Alternate)
Cherokee	R. D. Berge
Clarke	Dennis D. Wilken
	(Alternate)
Clinton	J. L. Monahan
Crawford	D. J. Soll
Dallas-Guthrie	E. E. Lister
	W. A. Seidler, Jr.
Davis	Richard Schoonover
Decatur-Ringgold	E. E. Gamet
	D. E. Mitchell
Delaware	J. E. Tyrrell
Dickinson	D. F. Rodawig, Jr.
Dubuque	J. A. Pearson
	J. W. White
Emmet	R. J. Dawson
Fayette	D. J. Ottilie
Franklin	R. E. Munns
Fremont	T. H. Largen
Greene	E. D. Thompson
Grundy	D. R. Kruschwitz
Hamilton	G. A. Paschal
Hancock-Winnebago	L. R. Fuller
	J. T. Mangan
Hardin	H. O. Stoutland
	(Alternate)
Harrison	A. C. Bergstrom
	(Alternate)
Ida	J. B. Dressler
Jasper	T. E. Kiernan
Johnson	R. T. Soper
	K. J. Judiesch
	W. J. Tegler
	Jack Moyers
	J. I. Gardner
	C. E. Hartford
	(Alternate)
	E. F. Rose
	(Alternate)
	P. M. Seebohm
	(Alternate)
Jones	E. H. DeShaw
Kossuth	R. E. Jongewaard
Lee	G. C. McGinnis
	W. B. Kasiske
Linn	C. R. Aschoff
	R. M. Chapman
	R. W. Conkling
	D. D. Morgan
	R. A. Sautter
Mahaska	S. A. Smith
Marion	Peter Van Zante
Marshall	W. T. Shultz
	L. O. Goodman
Monona	J. L. Garred
Montgomery	Oscar Alden
Muscatine	K. E. Wilcox
O'Brien	J. C. Peterson
Page	K. J. Gee
	(Alternate)
Plymouth	J. P. Trotzig
Pocahontas	J. B. Thielen
Polk	W. R. Hornaday, Jr.
	R. E. Hines
	A. N. Smith
	J. L. Fatland
	John Hess, Jr.
	M. R. Saunders
	J. W. Green, Jr.
	H. E. Wichern
	J. G. Thomsen
	J. I. Hostetter
	N. W. Irving, Jr.
	J. E. Kelsey
	R. K. Bunten
Pottawattamie-Mills	A. L. Sciortina
	M. E. Olsen
	Hormoz Rassekh
Poweshiek	H. R. Light
Scott	J. F. Collins
	D. A. Bovenmyer
	A. W. Boone
Shelby	J. H. Spearing
Sioux	L. K. Yates
Story	W. R. Bliss
	M. A. Johnson
Tama	A. J. Havlik
Union-Taylor	R. H. Kuhl
	R. W. Boulden
Wapello	R. P. Meyers
	L. E. Coppoc
Wayne	K. A. Garber
Webster	J. F. Kelly
	E. M. Swanson
Winneshiek	C. E. Larson
Woodbury	C. L. Beye
	P. M. Cmeyla
	R. C. Larimer
Wright	C. P. Hawkins

LIAISON DELEGATES

S. P. Leinbach C. W. Seibert

EX-OFFICIO MEMBERS OF THE HOUSE

L. J. O'Brien	A. M. Dolan
K. E. Lister	L. D. Caraway
R. H. Flocks	L. W. Swanson
V. L. Schlaser	H. J. Smith
T. A. Burcham	E. M. Smith
R. L. Wicks	J. H. Sunderbruch
J. F. Paulson	H. L. Skinner
J. F. Bishop	J. W. Eckstein
H. G. Marinos	R. F. Birge
J. M. Rhodes, Sr.	W. M. Krigsten

V. L. Schlaser, M.D., Secretary of the Society, moved that the minutes of the April 28, 1971 session of the House of Delegates be approved as published in the July, 1971, issue of the JOURNAL OF THE IOWA MEDICAL SOCIETY. The motion passed.

Dr. Caraway introduced the individuals at the head table and welcomed 16 new voting Delegates to the House. He directed attention to the "Working Procedures for House of Delegates," in the Delegates' packets; announced reference committee appointees and stressed the importance of reference committees.

Reports in the 1972 HANDBOOK FOR THE HOUSE OF DELEGATES were approved as published, except (1) the report of the Judicial Council on pages 18 and 19, (2) the report of the Standing Committee on Articles of Incorporation and By-Laws on pages 20 and 21, and (3) the report of the Committee on Drug Abuse on pages 51 and 52. Dr. Schlaser explained that adoption of the reports in the HANDBOOK, except those to be referred to appropriate Reference Committees, did not constitute adoption of any new policy; the reports are submitted for information only. Dr. Caraway referred the report of the Judicial Council to the Reference Committee on Reports of Officers; the report of the Committee on Articles of Incorporation and By-Laws to the Reference Committee on Articles of Incorporation and By-Laws, and the report of the Committee on Drug Abuse to the Reference Committee on Legislation and Miscellaneous Business. Next, Dr. Caraway introduced L. Neil Sutherland, AMA Field Service Representative, and Donald E. Wood, M.D., Indianapolis, Indiana, AMA Trustee. Dr. Wood spoke briefly and expressed his pleasure in being provided the opportunity to attend the meeting.

(Following are the reports previously published in the 1972 HANDBOOK FOR THE HOUSE OF DELEGATES.)

Reports of Officers

FROM THE OFFICE OF THE SECRETARY

The Secretary of the Iowa Medical Society is responsible for maintaining membership and dues records; conducting the official correspondence, notifying members of meetings, officers of their election, and committee members of their appointments and duties; and preparing minutes of all official meetings. Assistance is also provided to the district councilors in organizing and improving the component societies, and in extending the usefulness of the IMS.

COMMUNICATIONS

The IMS makes every effort to keep the membership apprised of what is occurring in organized medicine, and also provides information on pertinent health issues and advances in medicine to the public. Following is a listing of the various communications published by and/or distributed through the Society:

1. **IMS JOURNAL**—to all members; subscribers; clinical departments at The University of Iowa College of Medicine as a reference for residents, interns and medical students; also, exchange copies with other medical journals.

2. **IMS NEWS BULLETIN**—to all members, plus a selected group of allied health representatives. Copies of the bulletins reporting on IMS and AMA annual meetings are sent to all medical students at The University of Iowa College of Medicine.

3. **LEGISLATIVE BULLETIN**—to L.C.M.'s, Legislative Committee members, Executive Council, IMPAC Board of Directors, county society presidents, various allied health personnel, and to all IMS members when appropriate.

4. **IMS REPORT**—to all state and county medical society officers; to all medical students at The University of Iowa College of Medicine; to all of the previous year's graduates who are interning in various hospitals throughout the country.

5. **IN THE PUBLIC INTEREST**—reprints to all members of the Iowa Press and Iowa Daily Press Association; all members of the Iowa General Assembly; members of the IMS Woman's Auxiliary.

6. **WOMAN'S AUXILIARY NEWS**—to all members of the IMS Woman's Auxiliary and officers of the Society.

7. **AMERICAN MEDICAL NEWS**—to all members of the Iowa General Assembly.

8. **AMA EXECUTIVE VICE PRESIDENT'S LETTER**—to all members of the Executive Council.

HOUSE OF DELEGATES

The proceedings of the 1971 sessions of the House of Delegates were published in the July, 1971 issue of the IMS JOURNAL. The necessary administrative procedures have occurred to implement the directives of the delegates.

For the second consecutive year, both sessions of the 1972 House of Delegates, all reference committees, and the scientific program are scheduled at the Hotel Fort Des Moines.

This year's scientific program is of extremely high quality and should be of great value and interest to all physicians. Small seminar sessions and group discussions are again scheduled Monday afternoon to provide opportunity for individual physician partici-

pation. The March issue of the IMS JOURNAL contains the complete program, including information about specialty meetings, the Annual Banquet, and other special functions.

District councilors have received cooperation from the Headquarters Office in organizing their caucuses in preparation for the Annual Meeting, and in preparing for the meeting of the Nominating Committee.

EXECUTIVE COUNCIL

The Executive Council, the interim policy-making body, meets every three months between sessions of the House of Delegates. It is scheduled to meet once again, on April 13, prior to the opening session of the House on April 23.

JUDICIAL COUNCIL

The Judicial Council also meets quarterly between sessions of the House. Members of the Judicial Council and Board of Trustees meet for dinner the evening preceding Executive Council sessions; following this the two bodies conduct their business meetings separately. At the joint dinner, topics of general interest are discussed.

The principal responsibilities of the Judicial Council are (1) to approve applications for IMS membership, (2) to consider various questions regarding membership or ethics, and (3) if necessary, to discipline members of the Society.

A report from the Judicial Council appears elsewhere in the Handbook.

BOARD OF TRUSTEES

The Board of Trustees meets monthly in regular session and, when necessary, in special session. The IMS staff maintains almost constant contact with the Chairman of the Board, the President and, when appropriate, other officers of the Society.

A report from the Board of Trustees also appears in the Handbook.

COMMITTEES

Fifty-one standing and special committees, appointed by the President at the beginning of his term, have functioned during the past year. Over 80 official committee meetings have been held since the House of Delegates adjourned its final session last April, and others are scheduled prior to the 1972 Annual Meeting. The total does not include informal sessions between committee members and staff, telephone conferences, etc.

In addition to official IMS committees, the Society is represented on councils and committees of other state and voluntary agencies—e.g., the Health Planning Council of Iowa, the Iowa Regional Advisory Group, the Advisory Council to the Office for Comprehensive Health Planning, Advisory Committee on Emergency Medical Services, Advisory Committee on Physicians' Assistants Program, the Iowa Health Council, the Inter-Agency Smoking Committee, etc.

NATIONAL, REGIONAL AND STATE CONFERENCES

The Trustees have attempted to be selective in authorizing Society representation at national, regional and state conferences, recognizing that both gathering and exchanging pertinent information is important to staying abreast of what is occurring in organized medicine, and in maintaining a voice in what should occur. Following is a list of some of the major conferences at which the IMS was represented this past year: American Medical Association—Annual and Clinical Meetings; Congress on Medical Education; Conference on Quackery; Educational Health Careers Workshop; Conference on Physicians & Schools; Rural Health Conference; Conference on Medicine and Religion; Communications Institute; Medical Ethics Conference; North Central Medical Conference; U. S. Chamber of Commerce Aircade; AMPAC; Blue Shield Annual Program Conference; Blue Shield Board of Directors Meetings; State Meetings of Allied and Voluntary Health Groups.

IOWA REPRESENTATION AT THE NATIONAL LEVEL

The Society maintains close liaison with the AMA at both the officer and staff level. Several members of the IMS serve on AMA Councils and Committees, including the following: D. F. Ward, M.D., Dubuque, Council on Legislative Activities; C. H. Denser, Jr., M.D., Des Moines, Committee on Quackery; H. J. Smith, M.D., Des Moines, Committee on Government Medical Services; Robert G. Carney, M.D., Iowa City, Committee on Cutaneous Health and Cosmetics; W. C. Keettel, M.D., Iowa City, Residency Review Committee—Obstetrics and Gynecology; Dean M. Lierle, M.D., Iowa City, Residency Review Committee—Otolaryngology; Brian F. McCabe, M.D., Iowa City, Residency Review Committee—Otolaryngology and Archives of Otolaryngology; R. H. Flocks, M.D., Iowa City, Residency Review Committee—Urology and Interspecialty Committee; and Donald B. Kettelkamp, M.D., Iowa City, Archives of Surgery.

Four IMS staff members are active in the American Association of Medical Society Executives, and Mr. Donald L. Taylor, the IMS Executive Vice President, is a past-president of that organization. Mr. Taylor also serves on a special Advisory Committee to the AMA Executive Vice President, and is a member of the Board of Directors of the Professional Convention Management Association, and the Government Relations Committee of the American Society of Association Executives.

IMS FIELD SERVICE

Mr. Eldon Huston, the Society's Assistant Executive Vice President, directs the joint IMS/Blue Shield Field Service Program. According to comments from physicians throughout the state, the six field representatives function effectively, and provide a valuable service to individual practitioners, as well as to organized medicine and Blue Shield, respectively. The representatives operate in the designated areas, and confer with county medical society officers and member physicians about problems and projects relating to the Society and Blue Shield.

WOMAN'S AUXILIARY

The facilities and services of the IMS Headquarters are made available to the Woman's Auxiliary as it develops and implements various projects. Mrs. Hazel Lammey serves as staff secretary to the Auxiliary. The staff also cooperates with the Auxiliary in arranging its Annual Meeting and Board of Directors' sessions, in preparing its annual reports, in maintaining its membership records, and in preparing and distributing the WOMAN'S AUXILIARY NEWS. A recent successful venture was the sponsorship of a continental breakfast at IMS Headquarters for the wives of all of the state's legislators and executive officers.

IMS MEMBERSHIP

Iowa Medical Society membership for 1971 totaled 2,312. Of this number, 143 held active dues-exempt membership (114 Life Members, 22 Residents, and 7 Members in Military Service), and 65 Associate Members were exempt from the payment of dues. There were 58 counties (in 55 single or two-county societies) in which 100 per cent of the County Society members held membership in the IMS. Physicians ineligible for membership numbered 69, and there were 168 eligible non-members in Iowa. The number of retired or not-in-practice physicians was 63. The percentage of eligible physicians who held IMS memberships was 94 for the year.

AMA MEMBERSHIP

The members of the Iowa Medical Society who were active members of the American Medical Association in 1971 numbered 2,136. (This number includes active members who were dues-exempt because of life membership, residency or military service.) In addition, 65 held associate memberships, and two (working in Veterans Administration Hospitals) held service memberships in the AMA.

The 2,136 AMA memberships in 1971 entitled Iowa to three AMA delegates. In 1971 the Iowa AMA membership was 95 per cent of the total Iowa Medical Society membership.

V. L. SCHLASER, M.D. *Secretary*

COUNTY SOCIETIES HAVING 100 PER CENT MEMBERSHIP IN IMS IN 1971

Adair
Adams
Allamakee
Appanoose
Audubon
Boone
Buena Vista
Butler
Cass
Cedar
Chickasaw
Clarke
Clay
Crawford
Davis
Decatur-Ringgold
Delaware
Dickinson
Emmet
Fremont
Greene
Hamilton
Hancock-Winnebago
Hardin
Harrison
Henry
Howard
Humboldt
Ida
Jackson
Jefferson
Van Buren
Wapello
Washington
Wayne
Winneshiek
Wright
Monona
Monroe
Montgomery
O'Brien
Osceola
Plymouth
Pocahontas
Sac
Shelby
Sioux
Tama
Union-Taylor

1971 IMS MEMBERSHIP RECORD

County	Active Members	Associate Members	Eligible Non-Members	Ineligible Non-Members	Not in Practice or Retired	Percentage
Adair	1	..	..	..	..	100
Adams	2	..	..	..	..	100
Allamakee	8	..	..	..	..	100
Appanoose	8	1	..	..	1	100
Audubon	3	..	..	..	..	100
Benton	9	..	1	..	..	90
Black Hawk	122	4	2	..	3	98
Boone	18	1	..	..	..	100
Bremer	13	..	1	..	1	93
Buchanan	12	..	4	6	1	75
Buena Vista	10	..	..	..	..	100
Butler	6	..	..	..	..	100
Calhoun	7	..	2	..	1	78
Carroll	21	1	2	..	..	94
Cass	11	..	..	..	1	100
Cedar	6	..	..	..	1	100
Cerro Gordo	72	2	1	..	1	99
Cherokee	17	..	8	..	1	68
Chickasaw	6	..	..	..	..	100
Clarke	6	..	..	..	..	100
Clay	8	..	..	..	..	100
Clayton	6	1	2	..	1	78
Clinton	30	3	10	1	1	77
Crawford	9	..	..	..	..	100
Dallas-Guthrie	19	1	3	3	..	87
Davis	14	..	..	..	..	100
Decatur-Ringgold	7	..	..	..	1	100
Delaware	7	..	..	..	..	100
Des Moines-Louisa	48	1	6	..	..	89
Dickinson	7	2	..	..	..	100
Dubuque	59	1	18	..	..	77
Emmet	13	..	..	..	..	100
Fayette	15	1	1	..	1	94
Floyd	14	..	3	..	..	82
Franklin	5	..	1	..	..	83
Fremont	4	..	..	..	..	100
Greene	6	..	..	..	..	100
Grundy	6	..	1	..	..	88
Hamilton	8	2	..	..	..	100
Hancock-Winnebago	11	..	..	1	1	100
Hardin	11	..	..	..	..	100
Harrison	7	..	..	..	..	100
Henry	16	..	..	3	..	100
Howard	7	..	..	..	..	100
Humboldt	4	2	..	..	..	100
Ida	2	..	..	..	1	100
Iowa	9	..	1	..	..	90
Jackson	11	..	..	..	..	100
Jasper	20	..	1	..	1	95
Jefferson	11	..	..	..	..	100
Johnson	249	..	28	25	4	90
Jones	12	..	1	..	1	92
Keokuk	5	2	..	..	..	100
Kossuth	10	1	..	..	..	100
Lee	39	2	2	..	..	95
Linn	125	10	19	..	3	87
Lucas	2	..	..	..	..	100
Lyon	5	1	1	..	..	86
Madison	4	..	..	..	..	100
Mahaska	18	..	2	..	..	90
Marion	13	..	4	11	2	77
Marshall	43	1	..	..	2	100
Mitchell	12	..	..	..	..	100
Monona	7	..	..	..	1	100
Monroe	3	..	..	..	..	100
Montgomery	11	..	..	..	..	100
Muscatine	13	1	2	1	1	88
O'Brien	12	..	..	..	..	100
Osceola	3	..	..	..	..	100
Page	19	..	2	2	1	90
Palo Alto	9	1	1	..	..	91
Plymouth	9	..	..	..	..	100
Pocahontas	6	..	..	..	1	100
Polk	332	13	19	15	2	95
Pottawattamie-Mills	66	..	4	2	4	94
Poweshiek	9	..	2	..	..	82
Sac	6	..	..	..	..	100
Scott	112	1	4	..	4	97
Shelby	9	..	..	..	1	100
Sioux	13	..	..	..	1	100
Story	54	2	7	..	1	89
Tama	8	..	..	..	..	100
Union-Taylor	14	..	..	..	..	100
Van Buren	3	..	..	..	..	100
Wapello	40	1	..	..	3	100
Warren amalgamated with Polk						
Washington	9	..	..	..	2	100
Wayne	2	..	..	..	1	100
Webster	52	..	1	..	2	98
Winneshiek	13	..	..	..	..	100
Woodbury	106	6	1	..	7	99
Worth	3	..	1	..	..	75
Wright	15	..	..	..	1	100
TOTALS	2,247	65	168	69	63	94

REPORT OF THE TREASURER

The following financial statements reflect the fiscal status of the Iowa Medical Society as of December 31, 1971.

The 1971 expenses exceeded income by $38,477.05.

IOWA MEDICAL SOCIETY

Balance Sheet—December 31, 1971

ASSETS

Current Assets:		
IMS Checking Accounts		$ 26,574.02
IMS Savings Account		532.30
IMS Bank Certificates		90,000.00
Notes Receivable (Baldridge-Beye)		750.00
Pension and Disability Insurance—Due from Employees		290.69
Investments		38,589.06
TOTAL CURRENT ASSETS		$156,736.07
Fixed Assets:		
Land		$ 74,216.96
Building	$308,264.76	
Office Furniture & Equipment	38,334.81	
Less: Reserve for Depreciation	-167,565.00	$179,034.57
Net Fixed Assets		$253,251.53
TOTAL ASSETS		$409,987.60

LIABILITIES AND NET WORTH

Liabilities:		
Mortgage Payable		$ 35,728.08
Accrued Mortgage Interest		818.77
Accrued Personal & Property Tax		14,000.00
Deferred Compensation		38,589.06
Deferred Compensation—Due to Employees		839.79
Deferred Income		181,631.50
Baldridge-Beye Memorial Fund: Note 12-31-71		750.00
TOTAL LIABILITIES		$272,357.20
Net Worth:		
Balance 1-1-71	$176,107.45	
Less: Net Excess of Expenses over Income for 1971	-38,477.05	
Balance Net Worth		$137,630.40
TOTAL LIABILITIES AND NET WORTH		$409,987.60

BOARD OF TRUSTEES REPORT

The Board of Trustees has continued its practice of scheduling regular monthly meetings in order to take action on and oversee the myriad of Iowa Medical Society projects. A detailed and up-to-date accounting of the Society's finances and activities will be presented to the House of Delegates in April in a special supplemental report.

Consistent with a past action of the House, the Board is currently investigating methods of separating scientific and business sessions of the IMS, to best meet the needs and desires of the members. Any specific recommendations and information in this regard will be provided to the delegates prior to the Annual Meeting.

RALPH L. WICKS, M.D., *Chairman*

IOWA MEDICAL SOCIETY
STATEMENT OF INCOME AND EXPENSES

For the Year Ended December 31, 1971

Income for the Year 1971:	
Dues—State Society	$312,272.50
Interest on Investments	385.30
Gain on Sale of Stock	585.98
CHAMPUS	358.41
Miscellaneous	541.21
AMA Collection Commission	2,157.95
Total Income	$316,301.35
Expenses for the Year 1971:	
Annual Meeting (Net)	$ 4,140.77
Council Expense	2,727.39
County Society Services	5,733.31
Depreciation—Building & Equipment	36,000.00
Dues and Subscriptions	2,107.50
Employee Pension, Disability & Health Programs	21,845.39
Field Service	16,295.37
General Administrative Expense	2,546.59
Insurance	2,799.35
Interest Expense	2,233.21
Journal (Net)	14,730.87
Legal Expense	9,650.00
Lights, Gas & Water	6,263.85
Office Stationery & Supplies	6,481.09
Postage	5,689.73
Repairs & Maintenance	7,230.90
Salaries	106,599.33
Service Contracts—Machines	1,104.33
Taxes:	
Personal & Property	14,741.24
Social Security/Unemployment	5,262.19
Telephone & Telegraph	8,754.13
Travel—Officer	13,346.60
Travel—Salaried Employees	13,283.46
Trustee Expense	4,648.26
Woman's Auxiliary	3,225.81
Committee Expense	37,337.73
TOTAL EXPENSE	$354,778.40
Net Excess of Expenses over Income for 1971	$ 38,477.05

THOMAS A. BURCHAM, M.D., *Treasurer*

REPORT OF THE IMS JUDICIAL COUNCIL

The Judicial Council of the Iowa Medical Society continues to meet at least quarterly to consider those matters which require attention. Items relating to membership (active, life, associate, etc.) are routinely reviewed by the 12 district councilors individually and collectively. As *peacemakers* for their respective districts, the councilors have on several occasions resolved questions and misunderstandings within the medical community. The items which have been attended to by the Judicial Council are too numerous to list and, fortunately, practically all questions have been resolved promptly within established and well-defined ethical standards.

The members of the Judicial Council continue to be concerned over the small but seemingly steady decline in the number of physicians who are active members of their county and state medical society. The councilors strongly believe the Iowa Medical So-

ciety is the only and appropriate voice for the physicians of the state on matters relating to medical care, both scientific and socio-economic.

The Judicial Council has discussed on several occasions the matter of physician representation in the Iowa Medical Society, both on a district basis and within the IMS House of Delegates. Presently, the 12 councilor districts range from 38 physicians in the smallest district to a high of approximately 570 physicians in the largest. Although the Council to date has not attempted to arrive at a consensus for redistricting the Society, there are among the councilors varying degrees of interest in more equal physician population within each of the 12 districts. Further study needs to be given to this matter. In the same manner concern has been expressed over representation in the House of Delegates. We recognize any change in House representation would require extensive study and possible wholesale changes in the IMS Articles of Incorporation and By-Laws. The Judicial Council has considered this item less extensively than redistricting which is of more direct concern to the members of the Judicial Council.

E. E. GAMET, M.D., *Chairman*

Reports of Standing Committees

COMMITTEE ON ARTICLES OF INCORPORATION AND BY-LAWS

In considering a Resolution from the Polk County Medical Society on representation in the House of Delegates, the 1971 House of Delegates referred the matter to the Committee on Articles of Incorporation and By-Laws for study.

The Chairman of the Committee on Articles of Incorporation and By-Laws was privileged to serve in 1968-69 as Chairman of a special ad hoc committee which considered redistricting of the Iowa Medical Society as well as possible changes in House of Delegates' representation. Prior to undertaking a new comprehensive study, the members of the Committee reviewed the special ad hoc committee report of 1969. In that report, a complete evaluation was made of representation by district and by county. Several ideas were offered to change districts and House representation. However, in the final analysis, the Committee determined it prudent to hold in abeyance recommendations for any large scale changes in districting or representation.

The 1969 House of Delegates accepted the Committee report and no extensive change in the Society's organizational structure was made. The House should be reminded that, as a result of that study, the Polk-Warren Society was established as a separate councilor district. This action increased the number of councilor districts from 11 to 12.

In its recent review, the Committee has found no new information to supplement the data assembled in 1969 on the IMS district structure and House representation and, therefore, submits no specific recommendation at the present time.

A member of the Judicial Council has met on several occasions this year with medical student representatives at The University of Iowa College of Medicine to discuss implementation of the House of Delegates' action permitting student membership in the IMS.

For orientation purposes, two student representatives selected by student medical organizations have been invited to attend 1971-72 meetings of the IMS Executive Council. The Iowa Chapter of the Student American Medical Association has proposed that it be chosen as the "component society authorized to be established for medical students."

A review of this proposal and other recommendations will be made by appropriate representatives of the IMS, including legal counsel, as a prelude to further discussion. The policy of inviting student representatives to attend Executive Council meetings as observers will be continued.

J. F. BISHOP, M.D., *Chairman*

GRIEVANCE COMMITTEE

Eighteen cases were brought before the Committee during the past year. Seventeen cases have been settled to the satisfaction of everyone concerned. One is pending. No cases were referred to the Judicial Council and none of the cases resulted in lawsuits. Four cases involved controversies between physicians. The remainder were controversies involving doctor-patient relationships. Of the latter, most stemmed from misunderstandings secondary to poor communication between the physician and patient and the patient's family.

S. E. ZIFFREN, M.D., *Chairman*

COMMITTEE ON HEALTH EDUCATION

The Health Education Committee continues to assist radio station WOI in Ames in the production of a weekly radio program on which Iowa physicians are interviewed on various health subjects of immediate and long-range interest. Audience reaction to this series has been excellent, and station officials have expressed a desire to continue it.

The Society also works with WOI-TV in arranging for Iowa physicians to appear on special health-related television programs. Subjects presented during the past year concerned medicine and religion, how to avoid heart attacks and genetic counseling.

As has occurred in past years, Betty Lou McVay, a producer at WOI/WOI-TV who works closely with the Committee in arranging these radio and television health programs, will be invited to the 1972 Annual Meeting to interview guest speakers appearing on the scientific program. Tape recordings of these interviews will be utilized over radio and television. This activity has a two-fold purpose—to bring important and up-to-date information on health subjects to the public, and to demonstrate one way in which physicians continue to educate themselves in order to better serve their patients.

As a service to the membership, and also to the public, the Society secures speakers for both professional and lay group meetings, including pre-retirement planning seminars sponsored by business and governmental agencies.

During the past year, the Society also joined with the AMA to sponsor eight seminars and lecture programs presented at Iowa colleges and universities. The purpose of this program is to inform students and faculty of recent developments in medicine and to stimulate interest in the medical sciences. The sessions were held at Loras College in Dubuque; Grinnell College in Grinnell; Luther College in Decorah; Upper Iowa University in Fayette; Wartburg College in Wa-

verly; Central College in Pella; Drake University in Des Moines; and Iowa State University in Ames.

The Chairman of the Committee participated in one of two public health education meetings held in Waterloo under the sponsorship of the Black Hawk County Medical Society and the WATERLOO DAILY COURIER. The response to the programs was excellent, and the Committee strongly encourages county medical societies to undertake similar projects at the local level. Subjects discussed ranged from drug abuse and the generation gap to sex education and the cost of medical care.

The Committee is interested in and will keep itself apprised of the work of a new "President's Committee on Health Education" which was appointed late last year by President Nixon. Three physicians are included on the Committee, which has a four-part mission—i.e., (1) to examine what is now being done in the field of health education; (2) to determine what it believes should be done to make the individual more aware of the things he can do to promote his own health and well-being; (3) to suggest the ways in which a proposed Health Education Foundation might be structured, under whose auspices it might operate, and what the relationship of public versus private participation might be; and (4) to recommend a specific action program and appropriate staff, set guidelines and job descriptions, recommend a budget, and use appropriate means to help get the Foundation started.

The Committee continues to maintain liaison with the State Department of Health on matters relating to health education.

CRAIG D. ELLYSON, M.D., *Chairman*

NECROLOGY COMMITTEE

The following members of the Iowa Medical Society died during 1971:

	Age
Paul J. Amlie, Blairstown	63
Raymond A. Berger, Davenport	66
Charles F. Berkstresser, Sioux City	79
Burr C. Boston, Waterloo	72
Raymond J. Brink, Emmetsburg	60
Roy M. Conmey, Tujunga, California	88
Raymond E. Cooper, Keokuk	61
George B. Crow, Burlington	93
Edward L. Croxdale, Villisca	59
Keith W. Diddy, Perry	72
Alfred A. Eggleston, Burlington	75
Furman H. Entz, Waterloo	70
Diedrich J. Haines, Des Moines	60
Julia Ford Hill, Grinnell	84
Albert E. Johann, Des Moines	82
Frank O. Kershner, Clinton	91
Eugene H. McCaffrey, Des Moines	81
Harry M. McCuistion, Sioux City	74
Robert G. Mellen, Clinton	78
Henry G. Moershel, Homestead	79
Frederick G. Murray, Des Moines	95
Emma J. Neal, Cedar Rapids	93
Harry L. Pitluck, Laurens	64
Henry R. Powers, Emmetsburg	78
William H. Presnell, Charlotte	69
Rothwell D. Proctor, Cedar Rapids	73
John H. Rieniets, Cedar Rapids	71
Arnold M. Smythe, Des Moines	77
J. Kenneth von Lackum, Cedar Rapids	76
Rodney C. Wells, Marshalltown	64
Frank A. Wilke, Perry	57

COMMITTEE ON LEGISLATION

The second session of the 92nd Congress is considering several issues of prime importance to the medical profession:

HR 1 (the Social Security Amendments of 1971) has passed the House of Representatives and is presently before the Senate Finance Committee. Several sections of this legislation would amend the existing Medicare-Medicaid law. In addition, Senator Bennett has reintroduced his Professional Standards Review Organizational (PSRO) proposal, and Senator Long is still advocating adoption of his catastrophic illness insurance plan. Because of the intense controversy over the administration's family assistance plan, final action on HR 1 is in doubt.

HMO's—As reflected in the President's health message of last year, there is extensive federal interest in Health Maintenance Organizations. In addition to the President's proposal for HMO legislation, Congressman Rodgers of Florida, and Senator Kennedy of Massachusetts, are introducing their HMO programs. Legislation in the HMO area can be expected to include provisions for preemption of any state law which presently impedes or prohibits prepaid group practice.

National Health Insurance—The House Ways and Means Committee is continuing executive sessions on National Health Insurance. Legislation providing for additional regulation of the health insurance industry was recently announced by the administration. Whether or not any proposal will be reported by the Ways and Means Committee and considered by Congress depends heavily on the political developments which occur this election year.

Representatives of the Iowa Medical Society are presently planning the annual trip to Washington, D. C. This will occur early in March. This annual meeting with the Iowa congressional delegation has proved to be a worthwhile method of contacting Iowa's lawmakers at the federal level.

The Iowa General Assembly has indicated plans for a short session with adjournment early in March. Several items of interest to the medical profession are under consideration. Bi-weekly Legislative Bulletins are sent to Legislative Contact Men, key IMS officers and committee members to keep them current on health legislation. This enables physicians to visit informally at the local level with their legislators about health legislation.

In January the IMS Executive Council approved a bill to permit formation of Health Maintenance Organizations in the State of Iowa. This HMO proposal has been given to appropriate legislators but its chances of passage are uncertain. The proposal is the result of a year's study by the IMS which included discussions with other interested organizations, i.e., health insurance representatives, Blue Cross and Blue Shield officials, and officers of the Iowa Hospital Association. Information on HMO legislation and other actions of the 1972 Iowa General Assembly will be presented to the House in the form of a supplemental report.

J. H. KELLEY, M.D., *Chairman*

COMMITTEE ON MEDICAL EDUCATION AND HOSPITALS

The Committee on Medical Education recently developed several recommendations relating to continuing medical education activities. These recommendations were approved by the Executive Council on

January 26, 1972. Following is a summary of the actions taken:

1. Re Continuing Medical Education:

a. That the IMS oppose a mandatory program on continuing medical education for maintaining membership in the state society.

b. That all possible ways of stimulating physician interest and participation in Continuing Medical Education (CME) programs and activities be implemented, with emphasis on . . .

. . . qualifying for the AMA Physician Recognition Award in CME;

. . . peer review programs (hospital and office settings);

. . . involvement with the Iowa Foundation for Medical Care; and

. . . development of a CME profile of individual physicians (with a suitable questionnaire to elicit such information to be drafted by the Committee for future review and approval by the Executive Council).

2. Re Approval of CME Programs:

That in light of recommendations of the AMA, the IMS become engaged in a program of approving specific CME programs sponsored by various institutions and organizations in the state (hospitals, county medical societies, voluntary health organizations, etc.); further, that a detailed proposal, including the establishment of guidelines to be used in approving CME programs, be developed by the Committee and submitted to the Council prior to actual implementation of such a project.

3. Re Problem-Oriented Medical Records:

That the IMS endorse the implementation of an education program on the use of the problem-oriented medical record system and self-administered medical history form, with possible assistance from the Iowa Regional Medical Program. (Advocates of the use of the problem-oriented medical record indicate that it facilitates a continuing and sequential recording of patient problems and management, and enhances opportunity for self-education and self-improvement.)

4. Re MAST Program:

That the IMS assist The University of Iowa College of Medicine in determining physician reaction to and interest in having the College institute a "Medical Accessibility System Via Telephone" (MAST) program in Iowa.

With respect to item four, an IMS communication on the proposed MAST program was sent to all physicians on February 7, and to date the response has been generally favorable. Continuing attention will be given to the other items in the coming months, and the membership will be kept apprised of progress and recommendations that are made.

As previously recommended by the Committee, the IMS JOURNAL now carries a monthly feature entitled *Educationally Speaking*. This is prepared by Richard Caplan, M.D., Assistant Dean for CME, University of Iowa College of Medicine. Dr. Caplan is a member of the Committee.

Conferences on "Continuing Education in Iowa Hospitals" were held in Iowa City, August 13-15, and at Lake Okoboji, September 10-12, under sponsorship of the College of Medicine. The IMS assisted in the promotion of these programs.

The IMS, the Iowa Hospital Association and the Iowa Academy of Family Physicians continues to support and promote the Medical Education and Orientation (MECO) Project of the Iowa Chapter/Student American Medical Association. Informational letters on the project have been sent by the IMS to all county medical society presidents and secretaries, and to the chiefs of all hospital medical staffs.

The IMS and the Iowa Hospital Association co-sponsored a two-day workshop on the revised standards for hospital accreditation. This workshop was conducted by the Joint Commission on Accreditation of Hospitals and was held in Des Moines, November 11-12, 1971.

The Committee commends the 1972 Program Committee for arranging an outstanding series of scientific lectures and seminars for this year's Annual Meeting. All Iowa physicians are urged to attend and participate. Family practitioners are reminded the program has been approved for 8 hours of credit in continuing medical education.

The liaison and cooperation which exists between the IMS and the College of Medicine is excellent. Progress reports on activities of the College will be presented on Monday, April 24, during the 1972 Annual Meeting Program. These will be presented by John Eckstein, M.D., Dean, and Robert Rakel, M.D., Head of the Family Practice Department. Physicians are encouraged to be present for these reports.

HOWARD ELLIS, M.D., *Chairman*

COMMITTEE ON MEDICAL SERVICE

The Committee on Medical Service is the parent body for the three subcommittees (Economics of Health Care, Medical Review and Medical Practice in Health Facilities and Homes) whose reports follow these brief comments. Members of the 1972 House of Delegates are urged to read the reports of these several subcommittees.

J. K. MACGREGOR, M.D., *Chairman*

SUBCOMMITTEE ON ECONOMICS OF HEALTH CARE

The Subcommittee on Economics of Health Care has not met this year. Inasmuch as several members of the Subcommittee served at one time on the Society's Relative Value Index Committee, it is of interest to them to note and follow Society activities in the area of medical economics. The RVI was last published in 1962 and much new socio-economic ground has been covered in the intervening 10 years.

Much of the activity in this general area has been assumed by the Society's Committee on Medical Review. This Committee is now in the midst of developing standards of medical care to be used eventually in guiding the determination of the quality and quantity of care delivered in the state. Subsequent to the development and adoption of these standards, it is understood effort will be exerted to devise appropriate norms for care, i.e., cost or price guidelines. The challenge and the importance of this arduous assignment is recognized by those members of this Subcommittee who have carried out a somewhat parallel task in previous years.

The matter of geographical division of the state for various medical care delivery reasons continues to be before the Society. The Subcommittee on Economics of Health Care has evaluated this subject as it relates to the appropriate determination of prevailing fee levels under Medicare. Now under study for this purpose and also for peer review purposes is a rearrangement of the present regional subdivisions which are now in

use. Also under study is the possibility and wisdom of utilizing the entire state as one single geographical entity. Careful and ongoing study of this broad area is obviously much in order.

C. O. ADAMS, M.D., *Chairman*

SUBCOMMITTEE ON MEDICAL REVIEW

The Subcommittee on Medical Review is continuing its development of "standards of medical care." Each Committee member has worked with representatives of his specialty organization to prepare "standards" applicable to the State of Iowa. The standards recently established by the Metropolitan Health Foundation of Minnesota have served as a base for this work. The Subcommittee has completed its original review of the standards and suggestions from the specialty groups are now being incorporated into a first draft which will be considered by the entire Committee prior to the April meeting of the House of Delegates.

Earlier in the year the Subcommittee submitted several recommendations on peer review and standards of medical care to the Executive Council. These were adopted by the Council. They are:

1. Provisional approval of the Metropolitan Health Care Foundation medical care guidelines for use in Iowa, with the understanding they would be modified as circumstances may indicate.
2. The IMS consider the feasibility of establishing one statewide profile, both for medical care guidelines and fee norms for use by peer review and the Iowa Foundation for Medical Care.
3. The present councilor district peer review system be retained in order to keep peer review on a more local basis rather than on a statewide basis.
4. The *standards of medical care,* when completed and approved, be made available to hospitals, peer review committees and third parties for use as a tool in the establishment of utilization guidelines as one mechanism to enhance the delivery of quality medical care. Hospital staffs should specifically be encouraged to review the standards and implement their use where deemed appropriate.
5. The IMS encourage the Foundation for Medical Care to appoint immediately a committee to (a) study the role and possible areas of action of the Foundation for upgrading quality of care; and (b) that this committee make specific recommendations for action to accomplish this foremost goal of the Foundation—that of promoting quality medical care.

Several specialty representatives on the Subcommittee are to be commended for the large amount of work they have accomplished in relation to the assignment from the 1971 House of Delegates. The Subcommittee also has continued to serve as the IMS State Claims Review Committee and in this capacity has a responsibility to report to the House on Peer Review activity during the past year. The following statistics should be of interest to the House:

1. Total Peer Review Cases (5-1-71 to 1-15-72)—48
2. Number of Cases by District:

District I	2	District II	1	District III	0
District IV	4	District V	6	District VI	2
District VII	22	District VIII	10	District IX	0
District X	1	District XI	0	District XII	0

3. Cases Referred to Peer Review by:

1. Medicare	15	
2. Blue Shield	13	
3. Title XIX	9	
4. Aetna	7	
5. Travelers	2	
6. Industrial Commission	2	(Withdrawn)
	48	

4. Average Number of Days for Review—over 100 Days
   Longest Number of Days for Review—245 Days and Still Outstanding
   Shortest Number of Days for Review—28 Days
5. Five Cases Appealed to State Committee.

The Subcommittee plans to hold an additional meeting prior to the April session of the House of Delegates. If necessary, a supplemental report will be submitted.

R. S. GERARD, M.D., *Chairman*

SUBCOMMITTEE ON MEDICAL PRACTICE IN HEALTH FACILITIES & HOMES

The Subcommittee on Medical Practice in Health Facilities and Homes has not met this year. However, there are one or two items worthy of brief comment.

In recent weeks the State Board of Health has approved rules and regulations covering the operation of non-hospital health care facilities in Iowa. These extensive regulatory measures are now being reviewed by the Legislative Rules Committee and the Attorney General. The new regulations stem from enactment of a state law (which became effective in 1971) which creates seven classifications of health care facilities: adult foster home, boarding home, custodial home, basic nursing home, intermediate nursing home, skilled nursing home and extended care facility.

The new law and regulations place certain added responsibility with the physician. The physician must now certify that an individual admitted to any of the first three care facilities does not need nursing care. It is required further that a physician certify in the case of the other four levels that a patient needs no greater care than the facility in which he is to reside can supply. Also required under the new law is a care review committee in each facility; this committee does not necessarily require membership of a physician.

In the February issue of the JOURNAL OF THE IOWA MEDICAL SOCIETY, there is a summary of the public health nursing services which are available to Iowans remaining in their homes. Iowa public health nurses provided 80,000 nursing services in 1970 to Iowans ill in their homes. Such home care, nearly double that in 1969, is a large part of the public health nursing program.

Studies show a good coordinated home care program; (1) Expedites recovery from illness; (2) Prevents or postpones disability; (3) Shortens hospitalization and prevents re-hospitalization; (4) Helps to reduce the total cost of illness; (5) Prevents much medical indigency; and (6) Improves utilization of existing hospital facilities.

There are 45 home health agencies certified in Iowa to provide home care services under the Health Insurance Benefits Program.

The Society continues to hold membership in the Iowa Council for Homemaker Services.

J. F. VEVERKA, M.D., *Chairman*

MEDICO-LEGAL COMMITTEE

At the close of the 1971 Annual Meeting of the Iowa Medical Society, President L. J. O'Brien, M.D., assigned the complex subject of professional liability insurance to the Medico-Legal Committee. He requested the malpractice situation in Iowa be examined in depth.

Considerable fact-finding activity has been undertaken in the ensuing months. Actually, this began early in 1971 with two projects: (1) a meeting with defense attorneys at which it was decided that altering state statutes in the malpractice area would have limited impact, not really commensurate with the effort involved in securing passage, and (2) the completion of an informal survey of Iowa physicians to determine the extent of malpractice litigation over the past five years; the study did substantiate speculation regarding an increasing incidence of claims.

In early fall a specific problem presented itself when osteopathic physicians and surgeons associating with M.D. groups were precluded from obtaining liability coverage with the M.D. carriers. The Society was partially responsible for a meeting which the Insurance Commissioner held with insurance company representatives to review the matter. Several companies have now indicated a willingness to provide coverage in these instances.

In the fall and winter months separate data-gathering conferences were held with representatives of The Prouty Company of Des Moines, the American Medical Association, The Medical Protective Company, The St. Paul Insurance Companies and the Aetna Insurance Company. These conferences, plus information which has been gathered by correspondence, have provided the Committee with extensive reference material.

The conferences have included a conversation with Carl Hoffman, M.D., president-elect of the AMA and chairman of the AMA Professional Liability Insurance Committee. Dr. Hoffman serves on the President's Commission on Professional Liability. He reports there is no crisis in coverage availability as was the case in the recent past; he says several companies are quite actively merchandising liability coverage. He agrees that premiums are still a problem and are influencing the cost of medical care. He now favors the state sponsored approach with societies establishing insurability criteria and benefitting from premium economy with good experience.

Arrangements have been made for Dr. Hoffman to speak to the 1972 House of Delegates in April. He will report on national malpractice activity and other matters.

In a January report to the IMS Executive Council, reference was made to the (1) independent system of obtaining liability coverage which has been encouraged by the Society over the years, and (2) to the association sponsored type of coverage which now appears to be more in vogue. Conferences have been held with companies which advocate both approaches. It is understood that approximately 24 states now have some type of sponsored or group program. These apparently vary widely in association involvement, level of participation, etc.

The following preliminary conclusions on professional liability insurance may be made on the basis of the fact-finding to date: (1) it is a complex issue, (2) there are no easy answers, (3) accurate and comprehensive data is difficult to obtain, (4) the coverage picture is improved from the availability standpoint, but not from the cost standpoint, (5) AMA-CNA programs have yet to be implemented in any area, (6) state sponsored programs seem to be increasing in popularity, and (7) the public and the plaintiff's attorneys exert a principal influence over the total picture.

The Executive Council has instructed the Committee to pursue its investigation regarding a sponsored program and to report to the 1972 House of Delegates. This further investigation is in process and a supplemental report will be made to the House.

C. H. DENSER, JR., M.D., *Chairman*

COMMITTEE ON PUBLIC RELATIONS

The Chairman of the Committee on Public Relations attended an excellent AMA Communications Institute late in August. A new toll-free AMA Radio News Service was announced at this meeting. Under this program radio and television news directors can dial directly to the AMA to obtain up-to-date information on important events and advances in the field of medicine. Information on this new service was provided by the IMS to all radio and television stations in Iowa.

Contacts with communications representatives from press, radio and television are maintained on a regular basis. This is accomplished in part through the distribution to editors of the "In the Public Interest" section of the IMS JOURNAL; this feature comments on various issues and developments in the health field. This JOURNAL feature is also sent to all members of the Iowa legislature for their information and resource files.

Personal contacts are made with news media representatives when it becomes necessary to clarify and/or supplement those reports on medical matters which appear in the press or are reported over radio and television.

As a part of a national AMA campaign to focus attention on personal health care and in an effort to provide the medical profession's response to various national health care issues, several full-page advertisements were placed by the AMA in newspapers throughout the nation. The messages were identified as being from "America's Doctors of Medicine" and appeared in THE DES MOINES REGISTER AND TRIBUNE, which reaches four out of 10 Iowa households.

The 14th Hawkeye Science Fair, which the IMS sponsors with Drake University, THE DES MOINES REGISTER AND TRIBUNE and the Scanlon Medical Foundation/IMS, will be held in Des Moines April 7-8. This continues to be one of the Society's most effective and popular public-relations oriented activities.

Physicians throughout Iowa continue to cooperate in medicine's efforts to communicate effectively with the public by appearing on the series of weekly radio programs sponsored by the IMS and broadcast over WOI radio in Ames. There is also excellent participation on various television programs. A recent television panel discussion was arranged by the IMS on the subject of Medicare/Medicaid and was well received, as have been others on medicine and religion, genetic counseling, health manpower, etc.

The Society coordinates all arrangements for what has become an annual health education conference sponsored by the Iowa Health Council. The IMS is one of nine organizations which comprise the Council. Last year, the program was devoted to "teen-age problems" and participation was limited to teacher and student representatives from Iowa's high schools. Over 300 persons attended the conference and the response was excellent. This activity will be continued.

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Another ongoing Iowa Health Council project which receives wide public attention is the health exhibit section at the Iowa State Fair. The IMS assumes responsibility for coordinating this annual project.

The Committee is pleased to coordinate its activities with those of other Society committees which carry out additional programs which have direct and indirect "P/R" impact. As an example, attention is called to a full-day conference on sports medicine which will be held in March for interested physicians, coaches and trainers in the state. Arrangements are being coordinated by the Society's Sports Medicine Committee, and the program is being conducted under the sponsorship of the IMS and the Iowa High School Athletic Association.

The Committee urges societies and physicians at the local level to implement projects which seek public understanding and support of medicine's position on various health issues and problems.

J. G. THOMSEN, M.D., *Chairman*

SUBCOMMITTEE ON INTERPROFESSIONAL ACTIVITIES

The Subcommittee on Interprofessional Activities met with its counterpart committee from the Iowa Pharmaceutical Association last summer in a continuing effort to maintain liaison and enhance relationships between the IMS and IPhA. Several items of mutual interest and concern were considered.

The authority of podiatrists to prescribe drugs continues to receive attention. In this regard, it should be noted that the IMS has prepared a legal opinion on this subject and, if necessary, will resist any attempts to alter it.

The Society's Committee was informed that although the American Pharmaceutical Association is officially on record in support of repealing antisubstitution laws, the IPhA has not taken action in this regard. Pharmacy representatives were reminded the AMA has expressed opposition to the repeal of such laws and has approved a resolution advising physicians of the possible exposure to liability should a proposed "drug product selection authorization agreement" be signed. A panel discussion on the pros and cons of anti-substitution legislation was presented at the IPhA Annual Meeting last June, and a representative of the Committee, as a panel member, presented medicine's viewpoint on the subject.

The IMS has been advised that on recommendation of the IPhA Ethics and Grievance Committee, the following guidelines have been established by the IPhA with respect to physician-owned or controlled pharmacies:

1. There are three basic arrangements under which there would be direct or indirect financial interest in pharmacy by medical practitioners, and therefore be termed as unprofessional conduct and unethical practice:

a. In cases of sole physician ownership of a pharmacy as registered with the Board of Pharmacy, the physician has a direct financial interest and the public is financially exploited. The (IPhA) committee recommends that all pharmacies and pharmacists practicing therein be considered ineligible for membership in IPhA.

b. When a physician or physicians own a controlling interest in a pharmacy, the physician again has direct financial interest, the pharmacy policy is controlled by the physician, and the public is financially exploited. Therefore, the recommendation of the (IPhA) committee on this issue is that as long as a physician or physicians retain an interest which can be reasonably considered as controlling pharmacy policy, then the pharmacy and pharmacists should be ineligible for membership.

c. The third basic arrangement involves cases in which the pharmacy is operated in space leased to the owner pharmacists by physicians. Unless the rental fees charged are reasonable, according to the commonly accepted standards of the community, the pharmacist is practicing unethically. The committee therefore recommends that pharmacies which lease space from a physician must submit proper evidence to IPhA at the time of application to prove that there is no exploitation of the patient.

2. Information relative to the suspension or denial of membership of pharmacists in the IPhA because of their employment in physician-owned pharmacies is to be forwarded to the APhA in the form of a complaint because of unprofessional conduct.

IPhA representatives have advised as a result of a recent APhA ruling, pharmacists working in physician-owned pharmacies are in violation of APhA ethics, and they will be denied membership in the IPhA.

C. E. Radcliffe, M.D., Committee chairman, was installed as President of the Iowa Health Council at the IHC Annual Meeting last September. Donald L. Taylor, IMS Executive Vice President, was re-elected Secretary-Treasurer of the Council. S. P. Leinbach, M.D., is the third Society's representative on the IHC Board of Directors. Other member organizations of the Council are the Iowa Dental Association, Iowa Pharmaceutical Association, Iowa Veterinary Medical Association, Iowa Hospital Association, Iowa Nurses' Association, Iowa Nursing Home Association, Iowa Society of Osteopathic Physicians and Surgeons and Iowa Podiatry Society.

As IHC President, Dr. Radcliffe presided at the third statewide conference for representatives of Iowa high schools at the Veterans Memorial Auditorium in Des Moines last October. Approximately 300 students and teachers attended to hear talks on alcoholism and drug abuse, sexuality, the generation gap and emotional problems of teen-agers. Three Iowa physicians took part in the program which was well received. The IHC plans to continue its sponsorship of these yearly health education conferences.

Members of the 64th Iowa General Assembly were honored by the IHC at a dinner on February 3, 1972. Although no formal program was presented, the legislators were apprised of the purposes and objectives of the Health Council, in addition to some of its public service projects. It was pointed out the Council represents approximately 14,000 individuals involved in health care.

The Council arranged a special health education area at the Iowa State Fair last year, and plans are underway to develop a similar project again this summer.

Arrangements for all IHC programs and projects are coordinated through the IMS headquarters office by Mr. Taylor and other staff members.

C. E. RADCLIFFE, M.D., *Chairman*

COMMITTEE ON STATE DEPARTMENTS

The Committee on State Departments is made up of the chairmen of six Society subcommittees. Each of these subcommittees shares a common interest and relationship with one or more divisions of state government. The subcommittees are Aging and Chronic Illness, Maternal and Child Health, Psychiatric Care, Public Assistance, Rehabilitation and Safe Transportation.

The individual reports of these subcommittees follow these few comments and the members of the House of Delegates are encouraged to read them. The reports contain information on a variety of programs and activities which relate to health care in Iowa.

The Committee on State Departments does exist to serve a sort of umbrella function for the Society in terms of public health. To this end it is appropriate to point out that three IMS physicians serve most ably on the State Board of Health. In the past year, E. E. Gamet, M.D., Lamoni, has become chairman of the Board. His physician associates on the Board are P. J. Leehey, M.D., Independence, and P. M. Seebohm, M.D., Iowa City. Administration of the total program of the State Department of Health remains in the hands of Arnold M. Reeve, M.D., who is now in his third year as Commissioner of Health.

In an effort to provide member physicians with information on matters pertaining to public health, the Society continues to cooperate with the Department of Health in publishing its material regularly in the JOURNAL OF THE IOWA MEDICAL SOCIETY and in other IMS communications. Immunization, venereal disease, and public health nursing are examples of the subjects which are discussed on a periodic basis.

This report is offered as a brief foreword to the several subcommittee reports which follow.

A. H. DOWNING, M.D., *Chairman*

SUBCOMMITTEE ON AGING AND CHRONIC ILLNESS

The chairman of the Subcommittee on Aging and Chronic Illness was one of Iowa's representatives to the 1971 White House Conference on Aging which occurred in Washington, D. C., in late November.

This widely-publicized event attracted several thousand persons (including 150 physicians) from around the country. Both President Nixon and Health, Education and Welfare Secretary Elliot Richardson spoke to the delegates.

The Conference's Committee on Physical and Mental Health, one of 14 major committees, called for a comprehensive national health plan and, until that is achieved, provision of the complete range of health services for the elderly by expanding Medicare. Seventy-five of the 400 health section delegates signed a minority report agreeing with the objectives but urging that they be accomplished by expanding both Medicare and Medicaid.

The suggested national health plan, according to the Committee, should provide for a "public-private partnership in the delivery of services and federal financing and quality controls."

Much emphasis was given at the Conference to the need for improving the economic status of older people, to upgrading nursing home care and to lightening property tax burdens.

As a follow-up to the White House Conference on Aging, three state meetings are scheduled in the next few months. Regional meetings are planned in Davenport on April 11 and in Fort Dodge on April 13, followed by a statewide meeting in Des Moines in May. The chairman of the Committee is scheduled to participate in these events.

One additional matter deserves to be brought to the attention of the 1972 House of Delegates. In recent weeks the State Board of Health has approved rules and regulations which cover the operation of non-hospital health care facilities in Iowa. As this report is prepared, these rules and regulations are being considered by the Legislative Rules Committee and the Attorney General. These regulatory measures are based on a law which became effective in 1971 and which creates seven classifications of health care facilities; it also provides for the definition, licensing and regulation of these facilities. The seven classifications are adult foster home, boarding home, custodial home, basic nursing home, intermediate nursing home, skilled nursing home, and extended care facility.

Of particular interest and concern to physicians is the provision which requires a physician to certify that an individual admitted to any of the first three care facilities does not need nursing care. It is required further that the physician certify in the other four levels that the patient is in need of no greater care than the facility can supply.

The new rules and regulations cover virtually all facets of operation as they pertain to non-hospital health care facilities and it will undoubtedly take some time for Iowa physicians to become familiar with them.

E. E. LINDER, M.D., *Chairman*

SUBCOMMITTEE ON MATERNAL AND CHILD HEALTH

Various activities of an ongoing nature in the area of maternal and child health have been continued in 1971-72 even though the Subcommittee has not met formally. For example, the Society has recently authorized another year's sponsorship of the Iowa Youthpower Project, and it continues to be represented on the Nutrition Council of Iowa.

One matter was referred to the Subcommittee this year by the Iowa State Department of Public Instruction. The Department requested Society reaction on two existing DPI requirements, namely that teachers (1) have an annual check for tuberculosis, and (2) have a physical examination at least every three years. The Chairman conferred with several physicians, including members of the Subcommittee, and the following summary statement was transmitted to the DPI: "We have all come to the conclusion that an annual tuberculin test, with follow-up x-ray if positive, should be an annual procedure. We also concluded that a recorded general physical every third year should be done, if for no other reason than the individual's own welfare. We feel that a biennial physical examination would be more beneficial to both the school system and the individual."

In the area of nutrition, the Subcommittee is pleased to note the Society's involvement in a series of seminars and lectures at several Iowa colleges and universities. Eight such programs are being offered in the 1971-72 academic year with the arrangements having

been made principally by the American Medical Association. George L. Baker, M.D., a member of the Subcommittee, is one of three lecturers involved in the series. This is a long-time project of the AMA Council on Foods and Nutrition and this year involves 83 lectures in 15 states.

In addition to delivering four of the aforementioned lectures, Dr. Baker represented the Subcommittee and the Society at the 13th National Conference of Physicians and Schools held in Chicago last fall. A summary report was prepared by Dr. Baker and circulated to the Subcommittee.

Modest efforts have been made by the Society to focus attention on the increasing incidence of venereal disease. Statistical data and other information on this serious problem have been published this year in the JOURNAL OF THE IOWA MEDICAL SOCIETY. The Subcommittee has in its file the AMA Statement on Venereal Disease which reports that gonorrhea and syphilis rank first and third among the reportable communicable diseases in the country.

The AMA Council on Environmental and Public Health has urged medical societies to acquaint their membership with the dimensions of the VD problem. Physicians in private practice reportedly treat approximately 80 per cent of the syphilis and gonorrhea that comes to diagnosis but report to public health departments only one of every eight cases of syphilis and one of every nine cases of gonorrhea. Physicians are urged to assist public health departments by reporting the VD cases they treat.

The Society was represented at a meeting in January called by State Senator John Walsh for the purpose of exploring ways in which local chapters of the Junior Chamber of Commerce might assist in stimulating and coordinating community health programs. Representatives of the State Department of Health provided data regarding immunization activities in Iowa. They reported that 13 counties have active immunization clinics. They also provided immunization indices on rubella, DPT, measles and polio. All those present supported programs aimed (1) at maintaining high immunization levels and (2) at thwarting complacency in this area.

W. J. BALZER, M.D., *Chairman*

SUBCOMMITTEE ON PSYCHIATRIC CARE

The Subcommittee on Psychiatric Care has met four times this year. In October a report from the Subcommittee was presented to and sustained by the IMS Executive Council. This report requested Society support for a legislative proposal to revamp the emergency commitment procedures which now exist in the State of Iowa. The proposal establishes procedures for use in the emergency detention of mentally ill persons who are likely to injure themselves or others.

This legislation is a product of the efforts of the joint committee of the Iowa Bar Association and the Subcommittee. Formed in 1970, this joint committee (three members from the IMS and IBA) has in mind a long-term evaluation of the commitment statutes in Iowa. Progress to this end has been stymied somewhat this year due to schedule conflicts and the absence of one member from the State. It is anticipated that efforts will be resumed in the Spring.

The Subcommittee has expressed concern over the vague and misleading use of such terms as "psychotherapy," "group therapy," "family therapy," and "mental health." The Subcommittee advocates efforts to increase public understanding of the differences between medical (psychiatric) care and other systems or approaches now in existence.

The Subcommittee has discussed the dissolution of marriage law in Iowa which has superseded the divorce decree. The new procedure requires marriage counseling but sets no requirements for those who do the counseling.

No further indication of activity has been received with respect to the legislative proposal (H.F. 163) to require the registration of psychologists and the establishment of a psychology examining board. While strenuous opposition to this proposal would seem to be of questionable value at this time, the Subcommittee has recorded itself as opposed to passage of this kind of legislation.

The Subcommittee has evaluated a problem having to do with the "ethicalness of billing procedures" which was referred to it in 1971 by the Judicial Council. The matter in question involves the extent to which a psychiatrist should or must be available when services are provided by his employee who is a psychologist or psychiatric social worker. The specific situation was related to the reimbursement for services provided a Medicaid recipient. The Subcommittee has approved the following statement for guideline purposes and has transmitted it to the Judicial Council: "It is ethical to charge for medical services performed under the medical doctor's direction and supervision."

The three most recent meetings of the Subcommittee have been devoted almost entirely to reviewing those standards for outpatient and inpatient psychiatric care which are under study by the Society's Committee on Medical Review. Thomas P. Board, M.D., is a member of the IMS Committee on Medical Review and has requested the Subcommittee to assist him in evaluating these standards which have been devised by the Metropolitan Health Care Foundation of Hennepin County, Minnesota. This review by the Subcommittee has been completed and the Subcommittee has urged that the standards be subjected to refinement on an ongoing basis.

It should be noted in concluding that George Winkour, M.D., has this year become chairman of the Department of Psychiatry at The University of Iowa. Also, Richard Preston, M.D., a member of the Subcommittee, has become the Society's representative on the Committee on Mental Hygiene of the Iowa Mental Health Authority. Finally, it should be noted that J. T. May, M.D., Cherokee, has been named acting director of the division of mental health in the State Department of Social Services.

W. A. BOCKOVEN, M.D., *Chairman*

SUBCOMMITTEE ON PUBLIC ASSISTANCE

During the past year the Subcommittee on Public Assistance has attempted to maintain open lines of communication with the Department of Social Services, particularly on matters pertaining to the Iowa Medical Assistance Program (Title XIX/Medicaid).

The last meeting of the Subcommittee was held jointly with comparable committees of the Iowa Hospital Association and the Iowa Society of Osteopathic Physicians and Surgeons. This meeting was for the purpose of reviewing problems in the Medicaid program which concern both the medical profession and the hospitals. A problem of particular concern is that of the medical necessity of certain hospitalizations under the Medicaid program. The problem of "Retroactive Denials" for institutional care under Medicaid also received

considerable attention. The Department reported it is making every effort to cooperate with physicians and institutions in keeping to a minimum the requests for retroactive denials under Medicaid. Normally, the Department does not deny payment for questionable claims but asks the local hospital utilization committee to re-review the care rendered. It was pointed out that in cases where Medicare has taken a position that care was "not necessary," payment for the Medicaid portion must come entirely from state funds.

There was also a discussion of a new federal law which will give the Department responsibility for establishing a program to review the necessity for admitting a welfare recipient to a nursing home. In addition this program must provide for an annual review of those welfare patients who are residing in nursing homes.

At the same meeting, a status report on the Medicaid program was presented with emphasis on the modifications which are under consideration at the federal level. Congress is now considering HR 1 which, if enacted, would result in many modifications in the Medicaid program. The IMS, in cooperation with the AMA, continues to monitor the progress of this legislation.

Your Chairman, on recommendation of the IMS Board of Trustees, has become a member of the physician-pharmacist Formulary Advisory Committee. This Committee has met for organizational purposes, and has been asked to assist the Department in determining whether a workable formulary for the Iowa Title XIX (Medicaid) program can be devised.

The Chairman also has been available to the Department of Social Services as a consultant. And the entire committee has continued to be available to answer questions relating to the Medicaid program. As more and more of the provisions of Medicaid are established at the federal level, the impact of the state committee on this program appears to lessen.

The Subcommittee is grateful to the staff of the IMS for its assistance and guidance.

A. J. HAVLIK, M.D., *Chairman*

SUBCOMMITTEE ON REHABILITATION

The Subcommittee is pleased to report one of its members, Homer E. Wichern, M.D., Des Moines, has recently been named Physician of the Year by the Governor's Committee on Employment of the Handicapped. Dr. Wichern has served for approximately 20 years as Chief Medical Consultant, Disability Determination Unit, Iowa Division of Rehabilitation Education and Services. He is now eligible for a similar award at the national level which is presented by the President's Committee on Employment of the Handicapped. Letters in support of Dr. Wichern's nomination have been prepared and forwarded to the appropriate parties.

Information regarding new procedures to be followed by Iowa residents seeking Social Security Disability Benefits has been transmitted to Society members this year through various IMS publications. The new procedures have to do with obtaining medical evidence to support disability claims. In October the responsibility for helping claimants was shifted to the Social Security Disability Determination Division (DDD) of the Iowa State Rehabilitation Agency. Formerly, aid in securing initial medical evidence was provided by SSA district offices. The DDD is now writing directly to Iowa MD's and institutions for medical information. The information requested of physicians is to be specific in nature, e.g., onset of problem, severity, probable duration of impairment. According to Dr. Wichern, the new procedure is intended to save time and will hopefully lead to a better understanding among physicians as to the type of medical evidence needed.

For a second year the Society has agreed to provide savings bonds to be awarded to winners of a state essay writing competition conducted by the Governor's Committee on Employment of the Handicapped. The bonds have been authorized by the Board of Directors of the Scanlon Medical Foundation/Iowa Medical Society.

C. B. LARSON, M.D., *Chairman*

SUBCOMMITTEE ON SAFE TRANSPORTATION

No special projects were undertaken by the Committee on Safe Transportation during the past year. However, liaison continues to be maintained with the Department of Public Safety and the Iowa Highway Safety Patrol, and relations between the IMS and these agencies are excellent.

The Medical Advisory Board to the Department of Public Safety continues to function. The Board has evaluated the reports this past year of several driver's license applicants which required medical review and recommendation. To date, a total of 29 case files have been referred to the Advisory Board. It is emphasized that the Board acts in an advisory capacity only, and the granting of a driver's license remains the responsibility of the Public Safety Department.

The Chairman of the Committee also serves as Chairman of a new IMS Committee on Community Emergency Medical Services, which also includes representation from the existing Society Committees on Rural Health and National Emergency Medical Service.

Initial contact has been made with the Iowa State Highway Commission to discuss the possible use of uniform highway signs for emergency medical facilities, and further exploration will be made in this regard.

A. H. DOWNING, M.D., *Chairman*

PUBLICATIONS COMMITTEE

This report represents the finale of my first year as Scientific Editor of the JOURNAL OF THE IOWA MEDICAL SOCIETY, and a prologue to what we hope will be many more fruitful years of reporting to the Society the events within the organization of medicine, as well as the presentation of scientific information for the benefit and advancement of the profession.

A number of face-lifting changes have been instituted, including a new cover design and new headings for the various sections of the JOURNAL. It is our hope that the JOURNAL will continue to become more useful as well as attractive.

The editorial board has met on one occasion to discuss policies and plans. Other discussions have been held on a more informal basis.

We continue to be indebted to Richard M. Caplan, M.D., as he represents the interests of the JOURNAL within The University of Iowa College of Medicine. The flow of manuscripts from The College of Medicine is excellent, and the papers are of high caliber. We are faced with the difficult decision of selecting or rejecting articles inasmuch as there are limitations on the number of papers we can publish. Consequently, we continue to be able to present what appears to be the best for the most.

Iowa physicians have a standing invitation to submit suggestions, case reports, scientific manuscripts and news items to the JOURNAL at any time.

MARION E. ALBERTS, M.D., *Scientific Editor*

Reports of Special Committees

COMMITTEE ON ALCOHOLISM

The Committee on Alcoholism has had an active year to date. The Committee has met five times and has another meeting scheduled as this report is prepared. Two of the five meetings have taken the form of field trips, one to the Northwest Iowa Alcohol Treatment Unit in Spencer, and one to the Oakdale Alcohol Treatment Unit near Iowa City.

On the recommendation of the Committee, and with the subsequent approval of the IMS Board of Trustees, the Iowa Medical Society is serving as a cosponsor of two 1972 summer workshops on alcoholism. These are the Northwest Iowa School on Chemical Substances and Other Addictions to be presented June 5-9 at Buena Vista College in Storm Lake; and the Summer Workshop on Alcoholism at The University of Iowa in Iowa City from June 26 to 30. Representatives of the Committee will serve as lecturers at both workshops.

As part of its involvement in these two workshops, and in keeping with the year's emphasis on prevention and education, the Committee is encouraging participation in the youth sections of these two summer education programs. The Committee has contacted each county medical society to encourage sponsorship of a local student in one of the two workshops; by sponsorship it is meant that a participating county society would assist in selecting a student and would provide the $75 tuition. The Committee is urging that a sophomore or junior student be nominated so that he or she will be available at his or her school during the ensuing academic year to serve as a resource person.

As this report is prepared, the following eight county societies have indicated they will sponsor a student: Ida, Union-Taylor, Wapello, Van Buren, Johnson, Kossuth, Marshall and Hancock-Winnebago. These county societies have been provided instructions as to how to proceed in working with school officials to select a student. Other county societies are invited to share in the program and to advise the Committee of their interest.

A $300 grant has been authorized by the Scanlon Medical Foundation/Iowa Medical Society to provide four scholarships for youth participants in the summer programs. These students will be selected by the Committee.

The Committee this year has also:

- Noted with pleasure the selection of L. B. Sedlacek, M.D., Cedar Rapids, as the 1971 IMS Merit Award winner. Dr. Sedlacek is a member of the Committee and has been active in alcoholism activities for many years.
- Presented a well-received panel discussion June 16 at the Okoboji meeting of the Iowa Academy of Family Physicians. This project was coordinated by C. R. McClure, M.D., Decorah.
- Arranged two presentations on alcoholism for the 1972 IMS Annual Meeting. These will include a lecture by J. C. N. Brown, M.D., Iowa City, on "How to Make an Intelligent Referral of the Alcoholic Patient," and a panel presentation similar to aforementioned Okoboji meeting.
- Conferred with school representatives, including officials of the Iowa State Department of Public Instruction, about ways of reaching young people with information on the use and dangers of alcohol. A representative of the Woman's Auxiliary to the Iowa Medical Society also participated in this discussion. During the year the Committee has also conferred with a student representative, with key officers of the Iowa Academy of Family Physicians, and with the executive secretary of the Iowa Commission on Alcoholism.
- Participated in the Iowa Health Council fall program on teenage problems which included a presentation by the Chairman of the Committee on Alcoholism.
- Arranged for an exhibit on alcoholism to be presented as part of the 1972 Iowa State Fair Hall of Health.

As mentioned at the outset of this report, the Committee has visited the alcoholism facilities at Oakdale and at Spencer and has been impressed by the work being carried on in these two locations. The effective relationship which exists in Spencer between the facility and the medical profession is particularly worthy of note.

The Committee is hopeful the programs in which it is now involved will serve to bring useful information to the attention of both the medical profession and the general public.

S. M. HAUGLAND, M.D., *Chairman*

COMMITTEE ON ARCHITECTURAL EDUCATION

The Architectural Committee continues to meet with representatives of the Iowa Chapter/American Institute of Architecture to discuss mutual problems and concerns relating to hospital/health facility design and construction.

The initial project of the Committee is to develop guidelines and procedures for use by those involved in hospital/health facility planning. It is believed this is the first time a project of this type has been undertaken. A draft of the proposed guidelines has been completed. This draft sets forth the steps which must occur in any hospital or health facility building program in order for the ultimate structure to most effectively meet the needs of those who provide health care and those who receive the care. Prior to the development of the document in final form, representatives of the Iowa Hospital Association will be invited to meet with the Committee to review and comment on it.

It is anticipated the proposed guidelines will be submitted to the Executive Council this summer and, if approved, they will be made available to the memberships of the IMS, Iowa Chapter/AIA, and IHA.

The Committee wishes to emphasize that in an effort to avoid problems and pitfalls in a hospital/health facility building venture, and to assure a functionally sound and aesthetic structure (1) there should be a broad base of physician participation in the initial planning, (2) the architect who designs the facility should have early access to and consultation with the physicians who will utilize it, and (3) there should be continuing contact between the physicians, the architect and the facility administrator.

JAMES KELSEY, M.D., *Chairman*

COMMITTEE ON BLOOD BANKING

The Committee on Blood Banking met just before the last Annual Meeting of the Iowa Medical Society. As a result of discussions generated out of the Committee meeting held in March, 1971, we recommended that the Iowa Medical Society request the Iowa Association of Blood Banks (IABB) to develop a proposal for the establishment of a statewide donor procurement program designed to assist the University of Iowa toward its stated objectives of reducing the amount of commercially purchased blood at the University. It was further suggested that the proposal for such a statewide program be submitted to the Iowa Medical Society for endorsement. This proposal was accepted favorably by the Society at the last Annual Meeting.

The Chairman and other members of the Iowa Medical Society Committee met with the Ad Hoc Committee of the Iowa Association of Blood Banks (IABB) in Des Moines on November 18, 1971 to discuss this problem. The Iowa Association of Blood Banks Committee, although recognizing the desirability of reducing blood purchases by the University, did not achieve any unanimity of opinion regarding the need for a statewide program at this time.

The Iowa Association of Blood Banks Committee did not propose any investigative action regarding (1) availability of emergency blood in rural areas; or (2) availability of scarce blood types, fresh blood or blood components in areas supplied by Red Cross. The following resolution was passed by the Iowa Association of Blood Banks Committee: "That the University Hospital be urged to undertake an active blood procurement program designed to stimulate the voluntary donor concept and eliminate the purchase of blood from commercial sources."

It now seems apparent that community and hospital blood banks in Iowa, although willing to cooperate with the University, will wait until the responsible departments at the University indicate a desire to undertake such a cooperative program.

Your Committee will meet again in March to determine what recommendations to the Society may be appropriate.

W. S. PHETEPLACE, M.D., *Chairman*

COMMITTEE ON COMMUNITY EMERGENCY MEDICAL SERVICE

The Committee on Community Emergency Medical Service was appointed early last fall and its organizational meeting was held in October. It is comprised of two members each from the IMS Committees on Safe Transportation, Rural Health and National Emergency Medical Service. This composition will serve to enhance liaison and communications between these committees which have overlapping interests and concerns. In addition to its involvement in activities at the state level, the Committee will also maintain liaison with the American Medical Association's Committee on Emergency Medical Service.

Consistent with actions of both the AMA and Iowa Medical Society, the Committee is initiating contacts with the Director of Highways for the State of Iowa to promote experimentation with and evaluation of the use of uniform highway signs to direct motorists to emergency medical facilities.

A. H. Downing, M.D., Committee Chairman, was recently appointed by the Governor to serve on a Statewide Emergency Medical Service Advisory Council. This Council will provide guidance to various agencies in developing EMS programs and will serve in an advisory capacity to the State Department of Health as it implements programs of the Department of Transportation (DOT) under the federal Highway Safety Act.

Another member of the Society's Committee will serve on a statewide subcommittee to the EMS Advisory Council; this group will be involved in an emergency medical communications system study.

Members of the IMS Committee attended a statewide Emergency Medical Service Conference held in Des Moines October 7, under the sponsorship of the Iowa Regional Medical Program and Office for Comprehensive Health Planning, and the Committee Chairman has met with the AMA Committee on Emergency Medical Service.

A. H. DOWNING, M.D., *Chairman*

COMMITTEE ON DELIVERY OF HEALTH SERVICES

The Committee on Delivery of Health Services, formerly the Ad Hoc Committee on Delivery of Health Services to a Rural Area in Need, has been assigned the specific responsibility of maintaining liaison with The University of Iowa College of Medicine on matters relating to (1) the operation of the Model Rural Health Center at Oakdale, (2) the possible development of a community health center in Muscatine, and (3) any similar projects or proposals. The Committee will meet with officials of the College of Medicine on February 29 at Oakdale.

A Conference for Rural Health Care Delivery for Southwest Iowa was held in Red Oak on January 28-29, under the sponsorship of the Iowa Regional Medical Program. Representatives of the IMS participated in this Conference, as noted in the report of the Rural Health Committee.

The Committee is noting those projects reported in the public press which are designed to provide medical care to rural areas in need—i.e., (1) a plan by Emergency Room Associates (Des Moines) to open clinical medical offices in communities (near Des Moines) that do not have resident physicians; (2) creation of residency programs at smaller community hospitals in the state, with ties to The University of Iowa College of Medicine; and (3) a plan by the College of Osteopathic Medicine and Surgery (Des Moines) to establish "satellite" clinic operations. Information on the first and third of these programs has been channeled to the IMS.

MAX OLSEN, M.D., *Chairman*

COMMITTEE ON DRUG ABUSE

At its last meeting, the Committee on Drug Abuse reviewed a communication from the Harris (Texas) County Medical Society in which members of that Society were requested to refrain from prescribing amphetamines and methamphetamines, except in rare cases of legitimate medical need. In considering this action, and in acknowledging that physicians must assume leadership in efforts to combat drug abuse and addiction, the following recommendation was approved:

That a communication be sent to all members of the

Iowa Medical Society urging them to limit the use and prescribing of amphetamines, except in cases of accepted indications—i.e., narcolepsy, minimal brain damage (hyperkinetic children), and in certain selected cases of obesity, as an anorexic agent, for a period not to exceed six weeks.

This recommendation was submitted to the Executive Council on January 26, 1972 for its consideration, and the Executive Council directed that it be referred to the 1972 House of Delegates for action.

IMS members have been reminded via the NEWS BULLETIN of the reclassification of amphetamines and methamphetamine products, and some combinations, from Schedule III to Schedule II.

The Committee met last fall with Paul Flynn, who was then serving as Director of the Iowa Drug Abuse Authority, and Mr. Norman Pawlewski, Assistant to the State Commissioner of Health. These gentlemen reported on a three-day "Workshop for Emergency Treatment of Drug Reactors" which was held in Michigan, under the sponsorship of the Michigan State Drug Abuse Authority, with funding and cooperation from other interested agencies. The Chairman of the Committee has agreed to consult with Mr. Pawlewski as to the feasibility of scheduling a similar workshop in Iowa.

The IMS has communicated with county medical society presidents and secretaries to advise that the Iowa Drug Abuse Authority has established drug information centers in each of the 16 regional districts in Iowa. The names of the coordinating chairmen in the districts were also provided, and any physicians interested in working with these chairmen on a consultative basis were and are urged to contact the IMS or the IDAA.

Representatives of the Committee will attend a special seminar on drug abuse to be sponsored by the IDAA in March.

The Committee plans to maintain its liaison with the IDAA, and it is anticipated that a meeting will be scheduled at an early date with the new IDAA Director, Mr. Fred S. Brinkley, Jr.

ROBERT BITTLE, M.D., *Chairman*

COMMITTEE ON EYE CARE

The Committee on Eye Care held one meeting this year to continue its discussion with representatives of the Iowa Optometric Association on matters of interest to the two groups.

The Committee has reviewed "Proposed Guidelines for Physicians and Opticians" in connection with contact lenses. This has been done as a possible first step in establishing more detailed and well understood steps for physicians and opticians to follow in any mutual relationships.

The Committee also considered proposed legislation to be introduced in the Iowa General Assembly to give more autonomy and additional powers to the Board of Optometric Licensure. The Committee made several suggestions on the legislation which, when incorporated, will remove the objections of the Iowa Medical Society to the bill. As of this writing, the optometric legislation is on the House calendar and still needs approval from both houses.

No apparent efforts are being made in the General Assembly to seek passage of legislation to register opticians under the Board of Medical Examiners. The Committee will remain ready to assist in any legislative efforts in this regard. The Committee will continue to be available to consider matters regarding items of interest between physicians, opticians and optometrists.

A. H. DOWNING, M.D., *Chairman*

COMMITTEE ON GROUP INSURANCE

It is a pleasure to report that several new group insurance coverages have been added to the portfolio of sponsored plans available exclusively to members of the Iowa Medical Society. The Prouty Company of Des Moines, insurance administrator for the Society, proposed these additional coverages in 1971. They were subsequently evaluated by the Board of Trustees and approved in October by the Executive Council.

The new group coverages are now in the process of being offered to interested members and are summarized in the following:

OFFICE OVERHEAD EXPENSE DISABILITY. This plan is designed to pay fixed business expenses while the insured is disabled by accident or illness. The plan pays up to $1,000 monthly for covered office expenses. Benefits remain stable to age 70. Premiums are tax deductible as a business expense. In the open enrollment period, which is now in process, coverage in basic amounts will be issued to all under age 60 without evidence of insurability, subject to the qualification of 100 insurable applicants.

IN-HOSPITAL INDEMNITY. This plan will provide extra income when the insured is hospital confined. Coverage begins the first day of hospitalization and pays up to 365 days for each sickness or accident. The plan pays regardless of other insurance. The coverage is intended to fill gaps in personal or group medical insurance. Benefits are available from $20 to $60 per day. Sponsorship policies remain in force on a guaranteed renewable basis to age 70. If during the open enrollment period a sufficient level of insurable applicants is achieved, all members may apply for the basic daily benefit without evidence of insurability.

In addition to these two sponsored programs, The Prouty Company also intends to make available to interested physicians on an individual basis an EXCESS MAJOR MEDICAL coverage. This plan is described as providing true catastrophic protection up to $100,000 for covered medical expenses. The policy pays 100 per cent of all eligible medical and dental expenses incurred after the deductible has been satisfied. Family deductibles are either $10,000 or $15,000.

The Prouty Company continues to offer to interested physicians Group Accident and Sickness Disability Income and Life Insurance coverage. Three options are available under the Accident and Sickness Disability Program; one option affords two-year sickness and lifetime accident benefits, a second alternative provides seven-year sickness and lifetime accident benefits, and the third possibility offers sickness benefits to age 65 and lifetime accident coverage. Benefits may be selected from $50 to $300 weekly.

The Life Insurance Program is underwritten by The Bankers Life of Iowa and is available in units of $10,000, up to a maximum of $50,000. The rates are guaranteed for the life of the policy and include double indemnity and waiver of premium features.

The Blue Cross-Blue Shield Statewide Physicians Group Program continues to be available to member physicians. In 1971 the 365-Day Comprehensive Blue Cross coverage was modified to eliminate the deductible approach and to replace it with an 80/20 per cent co-insurance stipulation. The physician is re-

sponsible for 20 per cent of the charges and has a maximum liability of $250 for any one confinement. Certain problems have been identified in connection with this coverage and they are now being evaluated.

The monthly rates for this coverage are $13.50 for a single contract and $24.75 for a family contract. Payments may be made quarterly, semi-annually or annually. Physicians are eligible for the benefits within 90 days of joining the Iowa Medical Society without underwriting requirements. Members applying at any other time are subject to underwriting. There are now 595 active contracts under the program.

It should be noted that the Medico-Legal Committee has under study the broad and perplexing subject of professional liability insurance coverage. The Society's policy of encouraging physicians to secure coverage in this area on an independent basis is being evaluated in relation to a sponsored type of program.

R. S. GERARD, M.D., *Chairman*

COMMITTEE ON HEALTH PLANNING PROGRAMS

The Committee on Health Planning Programs wishes to call to the attention of all IMS members the following concluding paragraph from a "Statement on Health Planning" which was approved by the AMA House of Delegates last June: "The future patterns of health care delivery are certain to be influenced by the effectiveness of health planning activities at the community level. It is, therefore, imperative that each level of organized medicine—the national, the state, and particularly the local level—be actively involved in community health planning activities and evaluating the process and its effectiveness. By this means, members of the medical profession can retain a direct influence in developing a health care delivery system that will best serve their communities."

Members of the Committee and other Society representatives continue their involvement with those state agencies active in health planning—the Health Planning Council of Iowa (HPCI), a voluntary organization spearheaded several years ago by the IMS; the Iowa Regional Medical Program (IRMP), which was established under P. L. 89-239, to function in the area of heart disease, cancer, stroke and related diseases; the State Office for Comprehensive Health Planning (OCHP), which was established under P. L. 89-749 to promote and support state and area wide health planning that will assure comprehensive health services of high quality to every person in the state.

John Sunderbruch, M.D., is the Society's official representative on the Iowa Regional Advisory Group to IRMP, and three physicians nominated by the Society also serve—John Tyrrell, M.D., E. A. Larsen, M.D., and Terry Dynes, M.D. Dr. Sunderbruch and D. J. Soll, M.D., represent the Society on the OCHP Advisory Council, and your Committee Chairman, as a representative of the Society, was re-elected last May as President of HPCI.

In an effort to enhance communications and understanding between the IMS and IRMP, officials of the two organizations met in joint session last fall to discuss matters of mutual interest and concern. In addition, the Chairman of the Advisory Group and the Acting Coordinator of IRAG appeared before the Executive Council in January, 1972 to present a report on activities and goals of IRMP. At both sessions, it was noted that the major mission of IRMP has shifted from emphasis on research and education in heart disease, cancer, stroke, and related diseases, to assuring quality health care, accessible to all, and at reasonable cost. Also, the need for maintaining strong physician leadership in IRMP was underscored.

H. B. Weinberg, M.D., resigned as Coordinator of IRMP on January 15, 1972 to become director of medical education at a hospital in Florida. Efforts are now underway to secure his successor.

In addition to IMS representation and participation in HPCI, OCHP and IRMP, staff liaison between the three organizations has always been maintained. In order to further strengthen this relationship, a new IMS staff member has been employed whose major responsibility will be to carry out this liaison function to an even greater extent.

As President of HPCI, your Committee Chairman appeared before the Executive Council last fall to present an informational report on the activities of this organization, including its relationship with IRMP and OCHP. HPCI has an outstanding record of stimulating and assisting in the formation of voluntary health planning councils at the local level. Members of the HPCI Board of Directors were gratified that the Executive Council of the Society approved a motion to continue IMS support—financial and otherwise—of HPCI.

The Committee cannot give sufficient stress to the importance of active physician involvement with HPCI, IRMP and OCHP to assure that expert medical advice and leadership are present as health planning programs are developed and implemented.

HOMER L. SKINNER, M.D., *Chairman*

HISTORICAL COMMITTEE

The Historical Committee has held two meetings since the last session of the House of Delegates. Members of the Committee are now preparing a series of brief articles for the IMS JOURNAL which describe changes which have occurred in scientific medicine and in medical practice. The articles are appearing as a regular monthly feature under the heading "I Remember When . . . ?"

Communications were sent last fall to all county medical society presidents requesting the names of local physicians who might be interested in preparing historical reports or articles, based on personal knowledge and/or research of local documents and records, for the Society's library and for possible publication in the JOURNAL. To date, approximately 15 physicians have expressed an interest in working with the Committee to gather data on Iowa's medical history.

The Committee is pleased to note that W. H. Longworth, M.D., has prepared a manuscript on the history of medical practice in Boone County, and he plans to provide a copy to the Historical Committee. In addition, G. E. Morrissey, M.D., a member of the Committee, has prepared a manuscript dealing with the history of medical practice, progress and opinion in Scott County. It is being reproduced and will be made available to individuals on request.

Mr. Terry Goerne, a staff member of the State Medical Society of Wisconsin, met with the Committee to provide information about the Museum of Medical Progress, which is located at Prairie du Chien and which is a project of the Wisconsin Society. He suggested ways in which the IMS might participate in the museum and invited the Society to do so. This matter will be given further attention at future meetings.

OTTO N. GLESNE, M.D., *Chairman*

COMMITTEE ON INDEPENDENT LABORATORIES

No specific new business has been referred to the Committee and thus no meetings of the Committee have been called.

In the 1971 report of the Committee, attention was directed to a grant request made by the State Hygienic Laboratory of the Iowa Regional Medical Program (IRMP) to fund an Iowa Clinical Laboratory Performance Evaluation and Improvement Program.

As this report is prepared, word has come from IRMP that this continuation grant will be funded in 1972. This means the workshops and other types of continuing education exercises for clinical laboratory personnel will continue to operate this year.

Members of this Committee, also representing the Iowa Association of Pathologists, have been involved in this program. In fact, as reported previously, the Iowa Association of Pathologists has been identified with the State Hygienic Laboratory as a co-sponsor of this evaluation and improvement program.

Three representatives of the Committee continue to form a subcommittee to provide liaison to the Iowa Society of Medical Technologists. There has been no activity to report in this area.

K. E. LISTER, M.D., *Chairman*

COMMITTEE ON INDUSTRIAL HEALTH

The Committee on Industrial Health served in 1971 as a co-sponsor of a continuing education conference on occupational health and safety arranged and presented by the College of Medicine at The University of Iowa. Sidney A. Brody, M.D., participated in the course as a representative of the Committee and the Society. According to Richard M. Caplan, M.D., Assistant Dean for Continuing Medical Education, the conference was a success and may be repeated in another year.

The Committee continues to retain in its files the findings of a 1970 survey made of Iowa physicians to determine the extent of medical profession involvement in industrial medicine. Information from the survey has been provided in several instances this year to persons seeking data of this type. For example, information from the survey has been requested by and forwarded to the regional occupational health representative of the United States Civil Service Commission.

It should be pointed out that the new federal Occupational Safety and Health Act took effect in 1971. This far reaching law has as its stated purpose "to assure safe and healthful working conditions for working men and women" and "to stimulate employers and employees to institute new and to perfect existing programs for providing safe and healthful working conditions." Employers must maintain places of employment "free from recognized hazards that are causing or likely to cause death or serious physical harm to employees." Regulations implementing the Occupational Health and Safety Act of 1970 were promulgated last year and a copy is on file at IMS Headquarters. The Committee also maintains in its files an index of reference publications in the occupational health field; the materials are principally those which have been prepared by the American Medical Association and include the extensive series of AMA Guides to the Evaluation of Permanent Impairment.

D. W. COUGHLAN, M.D., *Chairman*

MEDICAL ASSISTANTS ADVISORY COMMITTEE

Representatives of the Iowa Medical Society attended and took part in both the Annual Meeting of the Iowa Association of Medical Assistants, which was held in Mason City May 14-16, 1971, and the American Association of Medical Assistants, which occurred in Atlanta, Georgia, November 9-13, 1971.

The IAMA is well represented at the national level by Mrs. Jeanne Green of Davenport, who was elected an AAMA Trustee in 1971.

The Committee, in behalf of all members of the House of Delegates, wishes to publicly thank the IAMA for arranging and sponsoring a coffee bar at the opening session of the House. This function has been carried out by the Association for several years and has become a welcomed "tradition."

The Iowa Medical Society has been pleased to assist IAMA in financing and printing its regular newsletter which is provided to all members of the organization.

The medical assistant is the direct link between the physician and his patients, his professional associates and the suppliers of equipment and medications. Membership in the state and national organizations helps to increase the effectiveness of the medical assistant. The Committee is certain it speaks for all physicians in commending members of IAMA for their many worthwhile services and activities.

JAMES F. BISHOP, M.D., *Chairman*

COMMITTEE ON MEDICAL MANPOWER

The Committee on Medical Manpower has continued to promote Iowa as a "place to practice" through (1) its regular contacts with University of Iowa College of Medicine students, graduates, interns and residents, and (2) through participation in the Medical Education and Community Orientation (MECO) Program of the Iowa Chapter/Student American Medical Association. The Committee is pleased that progress is being made toward the creation of a component medical student society, in accordance with a past action of the House of Delegates. This should serve as one additional means of stimulating the interest of medical students in returning to or remaining in Iowa to practice medicine.

At a meeting of the Committee last fall, John MacQueen, M.D., Associate Dean of The University of Iowa College of Medicine, presented an informational report which included the following items of interest: The Department of Family Practice is in operation and the Model Rural Health Center at Oakdale, which opened in January, 1972, will be utilized to train general physicians, nurses and dentists to serve as a health team in rural communities; the College of Medicine has retained a coordinator to develop a Physician's Assistant training program; the MECO program placed 41 medical students in 30 Iowa communities during the summer of 1971 in an effort to acquaint the students with and involve them in rural medicine; and negotiations continue between the College of Medicine and selected community hospitals to create affiliated programs.

The Society's Physician Placement Bureau continues to provide an important service to physicians seeking locations in the state, and communities seeking physicians, and the Bureau's efforts in bringing physicians

and communities together are often successful. The Committee has recommended that the efforts and activities of the Physician Placement Bureau and the importance of "personal recruiting" by physicians be given greater publicity, perhaps through an article or editorials in the IMS JOURNAL.

C. V. Edwards, Jr., M.D., represented the Committee at a Regional Workshop on Health Careers which was held last November in Omaha. Representatives of the Committee have met with officials of the Iowa Nurses' Association to comment on and offer suggested revisions in a proposed INA statement relating to "Standards of Nursing Practice in Hemodialysis Units." Another joint session will be held in the near future and, when completed, a final draft of the proposed statement will be submitted to the IMS Executive Council or House of Delegates for approval.

No objections have been expressed by the Society to a proposal of the State Board of Nursing to establish a Commission to Study Nursing in Iowa.

At last year's Annual Meeting, your Committee Chairman was privileged to participate in and moderate a panel discussion on the use of paramedical personnel.

BYRON MERKEL, M.D., *Chairman*

COMMITTEE ON MEDICINE AND RELIGION

The Committee on Medicine and Religion is concerned with the development of programs designed to enhance communications and understanding between the physician and the clergyman, in the belief that improved patient care will result when the two work together in a team relationship.

On recommendation of the Committee, the 1972 Annual Meeting Program Committee has scheduled a talk by Elisabeth Ross, M.D., on "The Needs of the Dying Patient." Dr. Ross will speak Monday, April 24. An afternoon seminar session on this subject will follow with participation by The Reverend Russell C. Striffler, Director of Chaplaincy at St. Luke's Methodist Hospital in Cedar Rapids, and David Belgum, Ph.D., Professor of Religion and Coordinator of Clinical Pastoral Education at The University of Iowa. Your Committee Chairman will serve as the panel moderator. Representatives of the clergy will be invited to attend.

Mr. Arne Larson, Director of the Department of Medicine and Religion of the American Medical Association, met with the Committee in December to review recent developments and to discuss potential projects. The Committee believes its primary function during the coming year should be to encourage county medical societies to arrange opportunities for joint physician/clergy conferences and discussions, and to assist in this regard in any way possible. It is anticipated that information on the purpose and objectives of the medicine and religion program, as well as resource information and suggestions for projects and activities, will be made available to county society presidents via personal contacts by IMS field representatives.

The Committee was represented by R. A. Pfaff, M.D., at the AMA Regional Workshop on Medicine and Religion which was held in Chicago, February 12. The Conference included a report on a study conducted at Lutheran General Hospital in Park Ridge, Illinois, in which the role expectations and the role value of hospital chaplains were evaluated.

The AMA has consulted with the Dubuque County Medical Society, through Dr. Pfaff, on the development of pastoral-clinical training programs at the seminaries located in Dubuque. Local physicians would be utilized as instructors. Continuing attention will be given to this matter.

The Committee will also support efforts to include medicine and religion courses as a part of medical school curricula, and to arrange continuing education courses for both physicians and clergymen.

PAUL FERGUSON, M.D., *Chairman*

COMMITTEE ON NATIONAL EMERGENCY MEDICAL SERVICE

The Committee on National Emergency Medical Service did not have opportunity to meet this past year, nor were any specific items referred to it for consideration and recommendation.

Two members of the Committee attended a special Conference on Emergency Medical Services sponsored last fall by the State Department of Health, the Office for Comprehensive Health Planning and the Iowa Regional Medical Program.

Robert C. Larimer, M.D., chairman, and D. J. Ottilie, M.D., member, represent the Committee on a new IMS Committee on Community Emergency Medical Services. Representation also includes members from the Committee on Rural Health and Safe Transportation. This membership has been selected to foster liaison and communication between these committees which have overlapping interests and concerns.

ROBERT C. LARIMER, M.D., *Chairman*

COMMITTEE ON ONCOLOGY

As a continuation of the Third National Cancer Survey in Iowa, previously approved by the Iowa Medical Society, a six-month period for collecting data on skin cancers was initiated September 1, 1971. According to the survey director, skin cancers were originally reported in the survey, but because most of them were seen in doctors' offices and because the survey was designed to collect cancer information from hospital records, it was felt that a special study should be undertaken. Forms which can be used for indicating the site of skin cancers are provided to physicians and each form has a carbon copy which can be retained for the patient's record.

Representatives of the Committee will continue to cooperate with other organizations and agencies—e.g., Iowa Division, American Cancer Society—on important matters relating to control, etc. In this regard, a "Manual for Cancer Programs," approved by the Commission on Cancer of the American College of Surgeons, has been provided to each member of the Committee for informational and resource purposes.

G. R. CLARK, M.D., *Chairman*

COMMITTEE ON ORGAN TRANSPLANTATION

The Committee on Organ Transplantation has not met recently, but it is worthwhile to bring the House of Delegates up to date on activities in organ preservation and transplantation in the State of Iowa. Over the past two years, 35 patients have received transplants at The University of Iowa-VA Medical Center. Eleven of these patients received kidneys from living-related donors, and the remaining 24 were of cadaver origin. There are approximately 40 patients awaiting cadaver

renal transplants; and at the present, five recipients have living-related donors.

The survival in the living-related group approximates 90% at two years, and the cadaver-kidney survival, about 50% at two years. Patient survival will be higher than kidney survival because, as the kidneys fail, the recipient will be placed on maintenance dialysis again. One patient has received two cadaver transplants, and the second is functioning well at the present time.

The Kidney Foundation of Iowa is in its second year of operation and has been successful in its activities. It has become a focal point in its concern for the overall treatment of chronic renal disease in the state. It carries out an active program for organ donation and has alerted many citizens to the need for cadaver organ donations. At times there is pressure brought on physicians by families to help them donate organs of decedent children or relatives. One of the potential stumbling blocks to the Organ Donation Program is physician disinterest. Some national societies have gone on record as favoring the involvement of their members in organ donation (Trauma Society, Neuro-Surgical Society).

It is a national tragedy that so many good donor organs are buried, when there are a great number of recipients needing organ donations. We will see the development of a national-sharing scheme which will make the best use of all cadaver organs, using tissue typing as the basis for selection.

The Regional Medical Programs are supporting some activities in the State, having to do with training of nurses and organ procurement and preservation. The University of Iowa has developed organ-procurement techniques which allow maintenance of life and function in kidneys for over 24 hours.

Members of the Kidney Foundation of Iowa have been writing their legislators in an attempt to get special legislation passed for patients with end-stage kidney disease. Last year, the Senate did pass such a bill, but the House did not have a chance to act on it. During this current legislative session, the Senate version (Bill 590) is being modified, and will hopefully pass the full legislature. Some funds are asked for in the current bill, however, they will not meet the needs of the renal patients in the State of Iowa.

National legislation is in the offing for support of patients with end-stage kidney disease, which would include organ procurement, dialysis and transplantation. The states with a satisfactory bill for the treatment of end-stage kidney disease may eventually be the recipients of federal support.

The Iowa Medical Society has made a policy statement in support of organ procurement and transplantation. It might be appropriate for the Society to give more priority to supporting legislation in this field. The Society's annual meeting would serve as an appropriate forum to bring the profession up to date on the activities of various state groups which are interested in organ preservation, procurement and transplantation.

R. L. LAWTON, M.D., *Chairman*

OSTEOPATHIC AND MD/DO LIAISON COMMITTEES

The Committee has not held a formal meeting since the House of Delegates met in April, 1971. A meeting is planned for March and the Committee will discuss mutual relationships between MD's and DO's, particularly as they affect the IMS/ISOPS Evaluation Enrollment Program and plans of the Des Moines College of Osteopathic Medicine and Surgery.

Although the Committee has not met formally, the Chairman has, on many occasions, been available for consultations with physicians and institutions at the local level who have raised questions about MD/DO relationships.

The current status of the IMS/ISOPS Evaluation Enrollment Program is as follows:

Approved by the IMS Judicial Council	170
Approved by the County Medical Society but not by IMS Judicial Council	0
Disapproved by the IMS Judicial Council	14
Hearings held by MD/DO Liaison Committee on appeal from disapproval by IMS Judicial Council	7
Hearings pending	0
No reply from county or pending	7

If any specific actions are taken at the March meeting they will be submitted to the House of Delegates in the form of a supplemental report.

J. M. RHODES, M.D., *Chairman*

COMMITTEE ON PARAMEDICAL SERVICES

The Committee on Paramedical Services remains on call to evaluate matters which may be referred to it. There have been no meetings of the Committee this year.

The national moratorium which has been urged with respect to the licensure of paramedical workers remains in effect. This action has been urged by the American Medical Association and the American Hospital Association until a full review can be made of the total health care spectrum.

There is continuing activity in Iowa with respect to determining the proper role of the physician's assistant. An eight-member Governor's Advisory Committee on Physicians' Assistants has been formed and includes three Society members. This Committee was provided for in 1971 state legislation and is to prepare recommendations on the duties this individual should perform and the type of training he should be required to obtain. The Committee is responsible to the State Board of Medical Examiners.

Inquiries have been received this year from several physicians regarding the membership of podiatrists on hospital medical staffs. Reference material from the Joint Commission on Accreditation of Hospitals and other sources has been provided.

The Society continues to answer numerous requests from young people who are interested in various paramedical occupations. The excellent AMA booklet entitled "Horizons Unlimited" is provided in answer to many of these requests.

The Society continues to be supportive to the Iowa Chapter, American Association of Medical Assistants. A page is allotted in each issue of the JOURNAL OF THE IOWA MEDICAL SOCIETY for publication of news pertaining to the medical assistants.

J. T. BAKODY, M.D., *Chairman*

COMMITTEE ON PHYSICIANS' ASSISTANTS

The Iowa Medical Society consulted with the sponsors of a Physicians' Assistants Bill which was introduced at the first session of the 64th Iowa General Assembly last year. Various recommendations were

submitted by the Society and these were incorporated into the bill which finally passed.

The Chairman of the Society's Committee also serves as Chairman of the Advisory Committee on Physicians' Assistants which was appointed by the Governor, in accordance with provisions of the new law. This Committee is to function in an advisory capacity to the Board of Medical Examiners on matters pertaining to the education of physicians' assistants and to the approval of applicants to supervise a physician's assistant. Byron Merkel, M.D., Chairman of the Society's Medical Manpower Committee, is also a member of the Advisory Committee, along with six other individuals representing nursing, hospitals, osteopathic medicine and surgery, education, and the College of Medicine. The first meeting of the Advisory Committee was in January, and a second session is scheduled late in February at the Headquarters Building of the IMS. The Society is making staff assistance available.

The Advisory Committee is encouraging The University of Iowa College of Medicine to proceed with the developent of its Class A (primary physician) Physician Assistant's training program, and will keep itself informed of the progress in this area.

Status reports on the development and implementation of physicians' assistants programs throughout the country are being made available to both the IMS and the Advisory Committee on Physicians' Assistants for informational and resource purposes.

It has been called to the attention of the Committee that the Iowa Nurses' Association has approved a resolution stating that "the nurse's ability to provide care to the patient requires a direct relationship with his physician while engaged in the practice of nursing as defined in Chapter 152 of the Code of Iowa" and resolving that "the Iowa Nurses' Association move to immediately instruct all nurses in Iowa to continue this relationship and refuse to accept the physician's assistant as a substitute for the physician."

The importance of experimentation and the need for flexibility in the initial development of physicians' assistants programs is recognized and is being stressed by members of the Committee.

JOHN K. MACGREGOR, M.D., *Chairman*

PRECEPTORSHIP COMMITTEE

The Preceptorship Committee wishes to remind physicians that, in accordance with changes approved a year ago, medical students are now required to complete a two-week preceptorship within the third year of medical school. Students are encouraged to take their preceptorships with Iowa physicians, although approval may be granted for an out-of-state experience. The published list of preceptors which is made available to students includes only Iowa physicians. During the past academic year (1970-71) 80% of the students precepted in Iowa.

The program has been restricted to preceptorships with primary care physicians—i.e., family practitioners, general internists and general pediatricians.

Ninety per cent of the students who completed preceptorships last year indicated the experience was a valuable one; approximately 3% reacted negatively to the program, and this appears to be the result of the preceptee feeling he served only as a "passive observer."

Robert Rakel, M.D., Head of the Family Practice Department, and R. M. Caplan, M.D., Assistant Dean, Continuing Medical Education, were guests at a recent Committee meeting. At this session, members of the Committee were provided, for review and comment, a preliminary draft of a document developed by the College of Medicine Preceptorship Committee which outlines its "educational objectives." The proposed document is to be used to evaluate the benefits derived by the medical student from the preceptorship program. It will help to measure what he learns about the practice of medicine in a community or setting other than a large teaching hospital. The document will be revised as necessary and prepared in final form. It will then be provided to all physicians who serve as preceptors for their information, along with an appropriate letter explaining its purpose and how it is to be used.

The Committee has recommended the College of Medicine's Preceptorship Committee consider and devise a method for an evaluation of preceptors by preceptees. It was felt the preceptors could benefit from such evaluations, and this could perhaps strengthen certain aspects of their individual preceptor programs.

There is agreement that the Society's Preceptorship Committee (which includes two faculty members) has an important responsibility in maintaining liaison with the College of Medicine Committee (which includes three members of the IMS committee).

Members of the Society who are interested in serving as preceptors should contact the Committee Chairman or Dr. Caplan.

L. D. CARAWAY, M.D., *Chairman*

COMMITTEE ON QUACKERY

The Committee on Quackery has focused its attention primarily on problems relating to the hazards and practice of chiropractic, and it has reaffirmed medicine's position that opposition should not be directed toward chiropractors as a group but, rather, toward chiropractic as an "'unscientific cult whose practitioners lack the necessary training and background to diagnose and treat human disease."

The Committee is pleased that, based on its recommendation, the 1971 House of Delegates changed IMS policy with respect to chiropractic from that of maintaining the status quo to one of opposing, limiting and eventually eliminating the cult of chiropractic in Iowa; also, the House directed that the Legislative Committee assume a more aggressive position in this regard, when the climate of the legislature so warrants.

The Committee is investigating a matter involving the possible performance by a chiropractor of certain diagnostic tests which extend beyond the scope of the chiropractic licensing act and which are in violation of the medical practice act.

At its 1971 Clinical Session, the AMA House of Delegates approved a resolution which encouraged all state medical societies to introduce and actively support state legislation to require that all U. S. institutions of higher education which educate students in the health care field be accredited by an agency recognized by the U. S. Office of Education and the National Commission on Accrediting. Such legislation was introduced at the first session of the 64th Iowa General Assembly (January, 1971). The Committee has recommended that if the pending accreditation bill is not passed during the session, the IMS should seek an appropriate sponsor to submit a similar bill in 1973.

C. H. Denser, M.D., of Des Moines, a member of the

Society's Committee, was recently reappointed to the AMA Committee on Quackery, and he keeps both groups apprised of important and pertinent activities and information.

W. R. WHITMORE, M.D., *Chairman*

COMMITTEE ON RURAL HEALTH

The Chairman of the Committee on Rural Health represented the Iowa Medical Society on the planning committee which developed the program for a Conference on Rural Health Care Delivery for Southwest Iowa, which was held in Red Oak, Iowa, January 28-29, under the sponsorship of the Iowa Regional Medical Program. IMS President L. J. O'Brien, M.D., was one of the speakers and discussed the Society's continuing concern over rural health. Other speakers focused attention on rural health problems and what is being done in some areas of the nation to cope with them.

P. L. Weigel, M.D., represented the Committee at the National AMA Rural Health Conference which was held last March in Atlanta, Georgia. John MacQueen, M.D., Associate Dean of The University of Iowa College of Medicine and a member of the Society's Medical Manpower Committee, appeared on the program to discuss activities and efforts of the IMS, the College of Medicine, the state's Regional Medical Program and the Comprehensive Health Planning Program to improve the health services and delivery of medical care to the people of Iowa.

The Committee Chairman will attend this year's AMA Rural Health Conference in San Francisco and will attend a special session for state rural health committee chairmen to provide information on the recent rural health conference held in Red Oak.

Members of the Committee and appropriate officers of the Society are provided pertinent informational materials and reports emanating from these state and national conferences.

MAX OLSEN, M.D., *Chairman*

COMMITTEE ON SPORTS MEDICINE

The Committee on Sports Medicine has concentrated much of its energy this year in planning a one-day Conference on the Medical Aspects of Sports. This meeting for interested physicians, coaches, trainers, etc., will be Thursday, March 30, at the Iowa Methodist Hospital School of Nursing in Des Moines. The Conference program has been developed by the Committee and will feature as the keynote speaker, Donald L. Cooper, M.D., team physician at Oklahoma State University. In addition to Dr. Cooper, presentations will be made by two members of the Committee, by the trainers at the four major universities in the State, and by several others. The Conference is co-sponsored by the Iowa High School Athletic Association.

It is the hope of the Committee that many Iowa coaches will attend and benefit from the Conference. Copies of the program will be mailed to all IMS members so they will have an opportunity to be aware of the Conference and attend if interested.

In other activities this year, the Committee has offered its services in an advisory way to the new State Boxing Commissioner. The Commissioner has acknowledged this offer and has indicated he may call on the Committee for assistance.

This fall the Committee re-examined its position with respect to athletic physical examinations and reviewed the exam form which it developed several years ago. This form has been available for optional use in the high schools and appears to be receiving increased use. As an outgrowth of this discussion, the Committee (1) directed a letter to the Board in Control of Athletics reaffirming its support for the physical examination form and requesting that it be considered for mandatory use, and (2) directed a letter to county society presidents reminding them of the existence of this form and asking about its use in the various counties. Each of these letters stressed the importance of having the exam forms available at games inasmuch as they provide for the entry of significant injuries and represent an important source of information.

The Committee this year reaffirmed its support of the use of the Tipton weight determination formula in the state's high school wrestling program. This scientific means of determining the ideal weight of a prep wrestler has been advocated by the Committee (and approved by the House of Delegates) but its implementation has been turned down by the Iowa High School Athletic Association. The Committee heard a report from Charles M. Tipton, Ph.D., on the refinement which has been made in the formula. The ongoing research has produced a formula which now makes possible the prediction of very accurate competitive weights.

The Committee has requested of the Scanlon Medical Foundation/Iowa Medical Society a small grant to permit Dr. Tipton to continue his research. This request has been approved. The IHSAA is also supporting the continuance of this research.

The Committee has directed a letter to the IHSAA reaffirming its belief that a mandatory trial program should be instituted in Iowa to determine the effectiveness of the weight determination formula. It is the feeling of those involved in the discussions that with more education of the coaches and school administrators the idea will likely be adopted.

It should be noted that the formula has attracted national attention and is being considered in Nebraska, Minnesota and Pennsylvania. A discussion of the research by Dr. Tipton has appeared in the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

R. W. ANDERSON, M.D., *Chairman*

COMMITTEE ON VOLUNTARY HEALTH AGENCIES

No specific matters have been referred to the Committee on Voluntary Health Agencies and thus no meetings of the Committee have been held.

It is appropriate to acknowledge in this brief report the effective and dedicated service which many Iowa physicians provide to the local, state and national components of the various voluntary health organizations. Without this guidance from the medical profession, these groups would have a difficult time operating.

Maintained at IMS Headquarters in behalf of the Committee is a file of reference material on the programs and activities of the various voluntary organizations in Iowa. Information is provided from this file to any inquiring physician. Of particular value in determining the purpose, organization, financing and programing of any voluntary group is the AMA Directory of National Voluntary Health Organizations.

C. E. SCHROCK, M.D., *Chairman*

WOMAN'S AUXILIARY ADVISORY COMMITTEE

The Woman's Auxiliary in Iowa continues, in cooperation with the Iowa Medical Society, to strive for better community health. The Advisory Committee commends this organization of physicians' wives for its efforts in the areas of health education, children and youth, and rural health and ecology. Cooperative approved programs at the county, state and national levels are carried on in these and other areas.

Through its Health Careers Committee, its Health Education Loan Fund, its support of the American Medical Education and Research Foundation and the Scanlon Medical Foundation, the Auxiliary continues to aid in the efforts to secure more health manpower for Iowa.

In the neighborhood of $5,000 is raised for AMA-ERF in various ways. This helps increase the amount allotted The U. of I. College of Medicine and it adds to the loan guarantee fund which aids students seeking help in financing their medical training.

The Health Education Loan Fund, now in its thirtieth year, is the Iowa Auxiliary's own financial aid program for nursing and technology students attending accredited schools. In 1971 the fund totaled $27,432.25, with $25,640.41 on loan. Of the 98 students who have used or are using the funds, 76 have completed repayments, nine are now repaying and the 13 others are just now in the borrowing period. There are no delinquent loans at this time as reported by an efficient committee which supervises this activity.

The International Health Committee has been very active in an effort to assist Yucatan, Iowa's sister state in Central America. Much needed health care equipment and supplies have been collected for Yucatan. County auxiliaries throughout the state have collected medical and surgical supplies for use in Yucatan hospitals. The 490 pounds of pharmaceuticals, 50 pounds of soap, $11,000 worth of medical equipment, johnny coats, bandages, etc., were delivered to a central point for transportation to Yucatan through the Iowa Partners of the Alliance. Supplies for mission hospitals and the World Health Organization were also a part of this committee's activity.

The Homebound Handcraft Sales, conducted in cooperation with the Easter Seal Society of Iowa, continue as a top priority project in several counties. The Auxiliary members make arrangements for the sale location and provide the volunteer sales personnel. The sale price of each item goes to the person who made it, and in this way some income, satisfaction and incentive is provided to the homebound.

Other community service projects are carried out by the Auxiliary's committees on children and youth, rural health and ecology, safety and disaster preparedness. Sponsorship or co-sponsorship (with PTA's, service clubs, churches, Farm Bureau women, etc.) of programs concerned with drug abuse, venereal disease, nutrition, preschool vision and hearing programs, etc., have been encouraged and carried out.

Interest continues in health legislation and the importance of members being informed voters is stressed. The Auxiliary again hosted the wives of Iowa's lawmakers at a Continental Brunch and presented a health related program. From all reports this project continues to be popular; the attendance is excellent.

The Volunteer Health Service Award each year recognizes a woman for outstanding volunteer service in the health field. This is an excellent public relations project at the county level inasmuch as nominations must originate at the county level.

Iowa's Auxiliary continues to receive recognition at the national level through representation on the Board of Directors by Mrs. Max E. Olsen and WA-SAMA liaison and the appointment of Mrs. Howard Ellis as Historian.

An effort is being made to provide programs more relevant to today's world and by endeavoring to offer a broad range of activities aimed at bettering the health of our communities. While no county auxiliary is expected to participate in all programs it is hoped each will find activities which can be carried out in each community regardless of the size of the auxiliary.

All programs and projects in which auxiliaries participate have been approved by the appropriate medical societies.

Interest of Auxiliary members is indicated by the 100 per cent attendance at national workshops of those committee chairmen invited to attend.

The Advisory Committee strongly urges each county medical society to support and encourage membership in the Woman's Auxiliary either through an organized auxiliary or in unorganized counties by membership-at-large.

KENNETH E. LISTER, M.D., *Chairman*

(This concludes the material published in the HANDBOOK FOR THE HOUSE OF DELEGATES.)



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Supplemental Reports

BOARD OF TRUSTEES

Presented by R. L. Wicks, M.D.
Chairman, Board of Trustees

The Board of Trustees met in regular session 12 times during the past year, and in preparing for this report, I reviewed the 83 single-spaced pages of minutes in which our considerations and actions are recorded.

As one of our prominent delegates likes to say, in an effort to give you a "worm's eye view" of a typical Board meeting, we've taken a little bit of this, and a little bit of that, and have developed an "agenda" as the basis for this report:

The number one item on any agenda relates to *finances*. The Board approves all bills incurred in connection with the operation of the Medical Society, including administrative expenses, committee and officer activity, building maintenance, special projects, and so on. We consider requests—and there are many of them—that come to us from various organizations and groups for financial assistance and support—ranging from $500 to underwrite expenses for Iowa medical student delegates to national SAMA meetings, to the contribution of a $25 Savings Bond to an award winner at the Eastern Iowa Science Fair.

The specifics of the Society's financial status will now be presented to you by Dr. Paulson.

FINANCES AND JOURNAL—SECTION I

J. F. Paulson, M.D., Trustee

(Referred to the Reference Committee on Reports of Officers.)

The Board of Trustees continues to function under the financial policy established by the 1968 House of Delegates. The House in 1968 increased the dues $25 effective January 1, 1969; agreed to continue the accelerated pay-off schedule on the building and recommended continued ownership of the property adjacent to the headquarters building. Under the accelerated building pay-off, the Society has saved considerable interest expense but has operated at a deficit during the last two years. The headquarters building became debt-free early in 1972. Although the budget established for 1972 anticipates a deficit, it is acknowledged that 1973 will permit the Society to turn the building payment and interest to other purposes. The Board is making every effort to conserve funds where possible and still meet the obligatons placed upon the Society by its members.

One area which has continued to improve is the finances for the JOURNAL OF THE IOWA MEDICAL SOCIETY. From a deficit of over $21,000 in 1969, the JOURNAL deficit for 1971 is slightly under $15,000. This has occurred even though operating and printing costs for the JOURNAL have continued to increase.

The JOURNAL OF THE IOWA MEDICAL SOCIETY is regarded generally as one of the better journals published by the smaller to medium-sized state societies. We are proud of this and we are pleased to report that while the IMS JOURNAL has been reduced somewhat in number of pages over the past year or so, a sincere effort has been made to make it more readable and interesting; several new regular features have been introduced and a new design format, including cover, have been installed. The isolated comment we have received on these innovations has been favorable. Several recent issues of the JOURNAL are at the tables to remind you of the new appearance.

Marion Alberts, M.D., Des Moines, has just recently concluded his first year as Scientific Editor, and we commend him for introducing this new JOURNAL look.

We encourage member physicians to express themselves in the JOURNAL. Manuscripts, editorials, letters to the editor are welcomed and are published whenever possible. A mini-survey of JOURNAL readership is being conducted at this Annual Meeting. A one-page survey is at an identified table in the exhibit area. We ask that you help the JOURNAL staff by passing along any of your ideas on this form.

Major expenses of the Iowa Medical Society continue to be credited to six items: (1) Salaries; (2) Building interest and principal; (3) Committee functions (including Legislation); (4) Travel—Officer and Employee; (5) JOURNAL; and (6) Taxes.

The automatic dues billing service instituted in 1970 as a service to county societies continues to receive favorable comment. Seventy-one county societies are presently participating in the automatic dues billing program and these members are billed directly for county, state and AMA dues. The counties seem to appreciate the relief from the time-consuming work formerly experienced by the county medical society secretary in carrying forth the dues billing and collection service.

The financial statements included in the HANDBOOK show an excess of expenses over income of slightly more than $38,000 in 1971. The Board is quite aware that such deficit financing must not continue and is taking steps to return the Society to a more favorable financial base, recognizing that the dues of the Iowa Medical Society are at a level where further increases would seem difficult to obtain.

The Board notes that the Secretary's report in the HANDBOOK lists 168 eligible non-members. This figure has increased in 1971 over a figure of 99 eligible non-members in 1970. The House last year viewed a special slide presentation on how an individual physician's dues dollar is apportioned among the Society's various activities. This slide presentation has been shown to many county medical societies during the intervening year. It would appear that continued efforts will be required by the officers of the Iowa Medical Society and officers of the county medical societies to encourage physicians to join their state professional organization.

The Board of Trustees recommends that dues for 1973 remain at $150 per year.

(Resumption of the report by Dr. Wicks.)

The Board maintains a continuing interest in *legislative matters,* and has kept informed on developments in connection with HMO legislation considered by the Iowa legislature during its past two sessions. As directed by the House of Delegates last year, representatives of the Board met with officials of the Iowa Hospital Association, the "Blues" and private insurance carriers late last summer in an attempt to come up with some mutually acceptable proposal for HMO enabling legislation. No substantial progress was made in this regard, either at the first conference or in subsequent ones.

As you know, S.F. 239—the HMO Bill which would have permitted the "corporate practice of medicine"—was ultimately defeated in the final stages of the recent legislative session. The issue of "corporate prac-

tice" is vital to the medical profession, since the employment of physicians involves the potential control of and lay interference in the practice of medicine.

The Board has given considerable attention and study to the general subject of *physician membership in the IMS,* and what can be done to supplement our efforts to communicate with and represent the best interests of the members, as well as bring back into the fold those physicians who, for one reason or another, have elected not to remain active in the state society.

Just recently, Dr. O'Brien, after consulting with the Board, responded to a letter that was sent to all county medical society presidents in the state from physicians in Sac County. These physicians raised six points of criticism and announced that they would not remain as members of the IMS. This matter was called to the attention of the Executive Council at its recent meeting, and the full text of Dr. O'Brien's letter of explanation and clarification was read. As a result, an invitation has ben extended to the six physicians in Sac County inviting them to attend the next meeting of the Council to discuss and exchange ideas and information on matters of mutual interest and concern, and attempt to resolve areas of misunderstanding. The communications from and with the Sac County physicians will be made available to the Reference Committee that will consider this report. I would like to point out that in his reply to the Sac County physicians, Dr. O'Brien did question their purpose in distributing their letter of criticism to all county medical society presidents prior to discussing their concerns and problems with officials of the Iowa Medical Society.

I know I speak for all of the officers and councilors in stating that we will meet with any physician or group of physicians whenever it is necessary to clarify the Society's position on any issue or policy.

In this regard, it should interest you to know that last July, on recommendation of the Board, presidents of the various *state specialty organizations and the Iowa Academy of Family Practice,* were invited to meet with Society officers at the Headquarters Building. The purpose of the conference was to discuss current programs and philosophies of the state society, and to enhance communications between our organizations. As a result, the Board has considered the feasibility of establishing formal ties with state medical specialty organizations and the IAFP, perhaps through the creation of an "inter-specialty" committee and formal specialty group representation in the House of Delegates.

In order to bring this entire matter of membership representation, communications, and liaison with specialty organizations into sharper focus, the Board of Trustees submits this specific recommendation for your consideration and action: that, consistent with a recommendation of the Judicial Council, continuing attention be given to the structure of and representation in the House of Delegates, and that a *special ad hoc committee* be appointed by the President, in consultation with the Board of Trustees, to study and make recommendations in this regard, including consideration of establishing formal specialty group liaison and representation, as well as to study the structure and function of the Nominating Committee.

Along this same line, you'll be interested in knowing that since *interns and residents* are now eligible for regular membership in the AMA, it has been recommended to the in-coming president that he also appoint a committee to explore possible resident and intern participation in the affairs of the IMS. As you know, the House has already authorized the creation of a *component student medical society,* and the Society's legal counsel is consulting with medical student representatives in the preparation of appropriate documents, for consideration by the House next year in issuing a charter and in establishing dues. Dr. C. E. Radcliffe, a member of the Executive Council who is on the faculty of The University of Iowa College of Medicine, and Dr. John Tyrrell, District VII Councilor, have worked closely with student representatives on this project, and they will be invited to serve on the committee that will investigate possible intern and resident involvement in the IMS.

Blue Shield is a perennial agenda item. This past year, the Board of Trustees met with representatives of the Blue Shield Board of Directors on two occasions. A great amount of time and energy has been devoted to resolving problems and clarifying misunderstandings that resulted from the implementation and administration of Blue Shield's UCR program. We are pleased that we have a very positive report on this subject and Dr. Bishop will now present it to you.

BLUE SHIELD—SECTION 11

J. F. Bishop, M.D., Trustee

(Referred to the Reference Committee on Insurance and Medical Service.)

Those who read or hear this part of the 1972 report of the Board of Trustees should be fully aware right off that the State of Iowa is vitally dependent on Iowa Medical Service (Blue Shield). More than one million Iowans (1,074,816 to be exact) subscribe to Blue Shield and derive from its pool of resources funds to support their health care expenses.

While it may take a minute to do so, we believe a statistic or two should be cited to establish or demonstrate the magnitude of Blue Shield. This House of Delegates should have some impression of the number of dollars which are entrusted to Blue Shield by the public and by the government to finance a significant part of the delivery of health care in Iowa. It is for this reason the following four paragraphs are provided.

First, through its regular business in 1971, serving over one million members under various contracts, Blue Shield paid $45.8 million in physicians' claims. This is up significantly from the $32.8 million paid in 1970.

Secondly, as the private intermediary for Medicare Part B in Iowa, Blue Shield disbursed $19.3 million in 1971. As Medicare carrier, administrator, intermediary, or whatever designation you prefer, Blue Shield is permitted little latitude in the performance of its responsibilities. It has no choice but to apply those federally authored regulatory measures which are transmitted from the halls of HEW. If you are irked by the minutiae and trivia afflicted upon you by Medicare, and we all are at times, take your wrath out on Blue Shield if you must, but be reminded the irritations you are experiencing are probably the result of federally imposed edicts which Blue Shield must follow. Be reminded also it was this House of Delegates that six or seven years ago urged Blue Shield to seek the job of carrier. The Board continues to believe this was a wise decision.

Thirdly, in its administrative involvement with the Iowa Medicaid Program, Blue Shield distributed $23.3

million in 1971. Of this, $6.4 million was paid to medical and osteopathic physicians.

Fourthly, as administrator for the government's CHAMPUS Program for military personnel and dependents, Blue Shield paid $837,281 in 1971. This was Blue Shield's first full year of involvement with the CHAMPUS Program. Blue Shield assumed the task at the request of the IMS after the Society had performed it for a number of years.

These figures bring into rather sharp focus Blue Shield's involvement at this time. Very nearly $90 million was channeled by Blue Shield to the Iowa medical community last year in payment for services provided either for its subscribers or for those enrolled in one of the federal or state government programs it oversees.

With this foregoing information in mind, it is appropriate for us to ask ourselves: Is it important for the Iowa Medical Society to continue to be closely related to Blue Shield and to provide support and counsel to the fullest extent possible? Or, putting it more simply, doctor, do you want to maintain the link you have with the mechanism that pays better than half of the non-institutional health care bills covered by third parties in the state? By its actions and by its utterances, the Board of Trustees has answered these questions strongly in the affirmative; so too has the House of Delegates. While there are situations which annoy and perplex us, your officers subscribe to the belief that the medical profession, through the Iowa Medical Society, has an obligation to maintain its positive relationship with Blue Shield and to enhance it whenever and wherever possible. To demonstrate the spirit of cooperation which does exist at the officer level between the two organizations, I believe it would be accurate to say there has been more joint deliberation this year than ever before; there have been no less than six meetings involving representatives of Blue Shield and the Society, meetings to assess current programs and to seek solutions to identified problems.

The Iowa Medical Society, as the state's professional organization for physicians, is totally controlled by the medical profession; its Board of Trustees, its Executive Council and its House of Delegates consist exclusively of physicians. Blue Shield, in contrast and by its nature, requires by statute a proportionate involvement by lay individuals. Yet, and this is pertinent, of the 26 persons which comprise its governing Board of Directors, a large majority are physicians; this is most significant at a time when consumerism is flourishing and when several states, Oklahoma and Michigan for example, have seen physicians move into a minority position in Blue Shield affairs. So, be mindful that the policy of Blue Shield is established by a Board which has more physicians than lay persons.

The Blue Shield Board has new principal officers and these men deserve acknowledgment for their effective work in the past and for their willingness to accept new responsibility. I refer of course to Sam P. Leinbach, M.D., of Belmond, who has become Chairman of the Blue Shield Board of Directors, and to C. E. Radcliffe, M.D., Iowa City, who has been named President of Blue Shield to replace Dr. Leinbach. Recognition is certainly due C. V. Edwards, Sr., M.D., Council Bluffs, whose decision it was to step down as Board Chairman; Dr. Edwards distinguished himself in that position.

The lay members of the Blue Shield Board provide a valuable service and bring to the Board expertise and knowledge of great importance. Presently such diverse representatives as a bank president, a professor of actuarial science, a newspaper publisher, an attorney, a hospital administrator, a past president of the Farm Bureau, and a businessman serve on the Blue Shield.

As we recognize persons and particular aspects of the Blue Shield program, we would do well to mention the activated or re-activated Medical Advisory Committee. Edwin F. Motto, M.D., Davenport, is chairing this Blue Shield committee and is performing an excellent service. Too, it is appropriate to acknowledge the conscientious efforts of Mr. William Recknor, executive director of Blue Shield, and his cooperative administrative staff.

I propose in the few remaining paragraphs to review the specific matters which are a concern to many physicians, those in this House this morning and many others scattered about the state. First of all, this House has urged Blue Shield for the past several years to eliminate its low-level service contracts; this is occurring and now less than 30 per cent of the business is of this type; there are approximately 60,000 fewer persons under these coverages than at this time one year ago. Conversely, and also with the sanction of the House of Delegates, Blue Shield is increasing its number of subscribers in the broader, high-level programs. Over 54 per cent (582,592) of the subscribers are now enrolled in the Comprehensive and UCR programs. This demonstrates that progress is being made in the effort to market more complete and comprehensive health care coverage.

The two high-level Blue Shield contracts—Comprehensive and Usual, Customary and Reasonable—have grown and in doing so they have, as we all know, created some problems and some physician concern. Efforts to alleviate this concern have been extensive. The Comprehensive contract superceded the Blue Chip program several years ago. Under Comprehensive, Blue Shield participating physicians are paid their individual usual and customary fees and the patients of non-participating physicians receive reimbursement for physicians' services based on $5 a unit in the Blue Shield Relative Value Index. The inequity which accrues to the non-participating physician and his patient is one major source of concern and for this reason the Society has urged replacement of the Comprehensive coverage with UCR. Thus, UCR is now the fastest-selling of the Blue Shield contracts and new offerings of the Comprehensive contract are not being made.

The Usual, Customary and Reasonable Program pays equal benefits for services regardless of the Blue Shield status of the physician. The difficulty with UCR has come in understanding fully how the payment benefit is determined. There is sometimes a difference in what the individual physician knows as his own individual usual and customary fee and what the Blue Shield UCR program has arrived at as the benefit it can pay for the particular service. It is most important for Iowa physicians to understand the following key definitions which are embodied in the Blue Shield UCR Program:

USUAL—The *Usual* charge is the most consistent charge made by an individual physician to patients for a given service.

CUSTOMARY—The word *Customary* is applied to a fee when it is within the range of usual charges for

a given service billed by most physicians with similar training and experience within a given geographical area.

REASONABLE—The term *Reasonable* charge is applied when the charge meets the usual and customary criteria. It is also considered *Reasonable* if in the opinion of the appropriate medical review committee it has aspects that set it apart from the general pattern for that particular procedure.

Blue Shield applies these definitions in formula form to claims submitted in behalf of UCR subscribers. It is paying UCR fees up to the 90th percentile, and by doing so, it is estimated that 95 per cent of physicians' charges for covered services are paid in full or, in other words, as submitted.

Iowa physicians have been and are urged to maintain their own schedule of fees. They should submit them in all cases as their usual charges. In a relatively few instances the Blue Shield UCR payment allowance may fall below the submitted charge. But by submitting his regular charge the physician may very likely in time establish himself within the customary parameters as they advance.

As you know, if you have followed the evolution of the UCR program, two provisions have prompted the most concern. These are the "hold harmless" and "prior agreement" provisions. The 1971 House of Delegates urged the Society and Blue Shield "to work together in refining the exact interpretation of these two concepts. . . ."

In looking for solutions to these problems this year, in joint sessions with Blue Shield officials, it was decided at least part of the dilemma has resulted from (1) the lag in the updating of UCR fee data, and (2) in the area of communications. So, as a result, considerable attention has been given to these matters and as of now the actions which have been taken appear to have justified the effort.

As a result of recent UCR modifications, and as announced in both IMS and Blue Shield bulletins, the physician's *Usual* charge is now to be computer updated twice a year (in March and September) using six months of claims (July 1 to December 30 and January 1 to June 30) for services incurred and paid; and in addition, Blue Shield will consider a manual update of the *Usual* fee (up to the customary level) once each calendar year. A physician may utilize this manual update procedure by contacting Blue Shield when the fee for a particular service is changed. These new administrative mechanisms will provide Blue Shield a much more current *Usual* fee.

The *Customary* charge updates are now to be made once per year using claims incurred and paid during the previous calendar year. As mentioned previously, this new arrangement will generally provide payment in full for 95 per cent of physicians' charges as billed for Blue Shield covered services. The *Reasonable* aspect of the program remains unchanged, for it is here where peer review is used when a case exceeds UCR parameters.

As mentioned also, a significant modification has been made in the UCR communications program. Under the new system, when a charge surpasses the Blue Shield payment level, based on the available UCR fee data, a letter of explanation is sent to the physician two weeks prior to the issuance of the payment. This letter requests the physician to review the claim to determine if any additional information needs to be provided. This information is then considered by the Blue Shield Medical Section for additional benefit payment. In this way the physician has substantial advance opportunity to be aware of the proposed disposition of the claim.

In addition, the Explanation of Benefits form has been revised to eliminate the concerns which may develop when a payment is made at the UCR level and below the submitted charge. The intent of this new form is to encourage discussion of fees between physician and patient. As an example, a statement on the Explanation of Benefits form now reads as follows:

IMPORTANT NOTICE: If a bill is received for the amount in this column and you have any questions, you may wish to discuss it first with the physician who is caring for you, and of course, Blue Shield is always available to answer your questions. You may address those inquiries to Blue Shield, Liberty Building, Des Moines, Iowa 50307.

These new procedures have been in effect for only a brief period. However, early reports offer real grounds for optimism; the problems appear now to be fewer in number and the understanding of involved physicians seems to be increasing. The IMS-Blue Shield field men indicate they are receiving favorable reactions in their personal contacts with physicians. We are pleased to report also that the increased effort of the Blue Shield medical director to make telephone contacts with physicians appears to be having a salutary effect.

Be assured the matters of "hold harmless" and "prior agreement" remain under careful study. Legal counsel has been involved in the extensive evaluation of these provisions which has occurred this year. And the removal of these stipulations has been suggested as legally possible. Blue Shield has advised that its representatives will confer with the Iowa Insurance Commissioner to request his approval to eliminate the application of these provisions from the coverage. We are pleased to report this and we are pleased to submit the foregoing paragraphs as an indication that some progress has been made in alleviating the problems associated with UCR. Time will tell what more can be accomplished; we assure you the efforts in that direction will be extensive.

With the Society, Blue Shield continues to follow developments nationally and locally as they relate to health maintenance organizations. The possibility of Blue Shield serving as an HMO on an experimental basis remains under consideration. Here again time will tell if this idea has merit and appears worthy of pursuit. During recent months presentations made by Blue Cross representatives about HMO's and the future of health care delivery were objected to by a metropolitan county medical society. Some of the material presented in these meetings was described by physician listeners as "inflammatory" and "negative." Following conferences between the medical society-Blue Cross-Blue Shield and the county society a mutually acceptable decision was made to eliminate the questionable material. The Legislative Committee will have additional comments to make about HMO's in Iowa.

The thoughts expressed in this report will certainly attest to the ever-increasing complexity of the Blue Shield operation. There are many here who remember when only one or two low-level service contracts comprised the Blue Shield portfolio. There was no problem in understanding the meager payment provisions of these early coverages.

In keeping with today's complex lifestyle, Blue Shield has found it necessary to offer a number of contracts which range from partial to substantially full coverage. This obviously and understandably has made it difficult for busy physicians to stay current, we have very little time to grasp the procedures which may be unique to a particular contract. But herein lies the challenge for the Medical Society and Blue Shield, we must inform our membership to the very best of our ability and we must do all in our power to gain their confidence, to make them aware that what we are doing has their best interests in mind and the best interests of their patients. Personal contacts by the IMS-Blue Shield field service staff, the in-office conferences with physician employees, the workshops for medical assistants are examples of the efforts which are being put forth to provide information on Blue Shield and to promote understanding.

The marketing and advertising of Blue Shield and Blue Cross coverages sometimes appear to lead BC-BS members to believe they have more complete coverage than is included in the contract. The difficulty in writing meaningful and brief advertising messages is recognized. BC-BS members often seem to confuse paid-in-full provisions of Blue Cross with what may be more limited Blue Shield coverage. The Board of Trustees of the Society and others have recognized this problem. The Board is urging Blue Shield to strengthen its participation in marketing and advertising programs in an effort to avoid misleading many subscribers and potential subscribers into feeling they have more coverage than may be included in the contract.

This discussion of Blue Shield and its current relationship with the Society has been extensive. While there is considerable information embodied herein, there could be other items which are not covered. Representatives of Blue Shield and the Board of Trustees will be present at the Reference Committee hearing to elaborate as desired.

(Resumption of the report by Dr. Wicks.)

The Board of Trustees is often called upon to recommend physicians for appointment to various boards, councils and committees of the state government and of allied organizations, and we have been very successful in securing men who are knowledgeable and willing to work in behalf of the Society.

In the past year physicians have been nominated for appointment or election to the State Board of Health, State Board of Medical Examiners, Hill-Burton Advisory Council, Physicians' Assistants Advisory Committee, Iowa Regional Advisory Group, Advisory Council to the State Office for Comprehensive Health Planning, Health Planning Council of Iowa, Steering Committee for Diabetes Detection Program, State Advisory Committee on Emergency Medical Service, Medical Statistics Committee of the Iowa Hospital Association, Iowa Health Information System Council, Iowa Health Council, Blue Cross Board of Directors, National Advisory Committee of the Selective Service System, Physical Therapy Licensing Board, and many others. Through official—and unofficial—representation on these councils and boards, the medical profession is in a position to have a part in the development and implementation of all of the important health activities being carried on in the state.

Members of the Board are very sensitive to the need for maintaining close contact with these various agencies, and we try our best to keep informed and to "head off" any serious problems. For instance, during the past year, the Board met in separate sessions with representatives of the Iowa Regional Medical Program and the Health Planning Council of Iowa to obtain information on projects and activities of mutual interest. In addition, arrangements were made for officials of these groups to present reports to the Executive Council. In an effort to strengthen our communications, we have secured the services of an additional staff member—Mr. Richard Phillips—who will devote the major portion of his time to maintaining constant contact with state governmental and voluntary health agencies which are engaged in projects and activities related to health care and the health care delivery system.

An effort has also been made by the Board to establish direct communications and liaison with John Eckstein, M.D., Dean of The University of Iowa College of Medicine, and his associate and assistant deans. The involvement of the Board supplements activities of the Society's Committee on Medical Education and Hospitals.

For instance, mainly as a result of a meeting arranged by the Board with representatives of Blue Shield and the College of Medicine, a committee was appointed—i.e., the Committee on Delivery of Health Services—to consult with Dr. Eckstein and other appropriate faculty members on health care delivery programs which the College is developing. This special committee recently met with Robert Rakel, M.D., Head of the Family Practice Department, and John MacQueen, M.D., Associate Dean, to discuss the operation of the Family Practice Clinic at the Model Rural Health Center in Oakdale, and the status of a Community Health Center project in Muscatine. A report on these programs was recently presented to the Executive Council by the committee chairman, Max Olsen, M.D., and the Council approved a recommendation that the Society support these innovative experiments in health care delivery, and assist in their development. You can be assured that the committee will continue to confer with College of Medicine officials involved in these projects.

Our relations with Dean Eckstein and his faculty simply could not be better. We were in frequent touch during the recent legislative session on many issues of mutual concern. Dr. Eckstein was invited to all meetings of the Executive Council, and both he and Dr. Rakel are scheduled to take part in the program of this year's annual meeting. We are indeed fortunate to have men of the caliber of Dr. Eckstein and his associates actively involved in and cooperating with the IMS in various endeavors. I am sure that as the State Society increases its continuing medical education activity, our relations and communications will be enhanced even more.

Progress reports on the function and operation of the Iowa Foundation for Medical Care have been presented to the Board of Trustees at each of its meetings and also to the members of the Executive Council. As you know, the Foundation was incorporated last May as a result of an action of the 1971 House of Delegates and members of the Board and District Councilors have served on the Foundation's Board of Directors. The Board of Trustees has taken a special interest in the potential peer review activity of the Foundation since the Board has been receiving and transmitting recommendations of the various district peer review committees of the Society on cases referred to them by third

party carriers. We have developed a specific peer review proposal for consideration by the House. It is appropriate that this portion of the Board of Trustees report be read to you by the President of the Foundation, Dr. John Sunderbruch.

FOUNDATION FOR MEDICAL CARE—SECTION III

J. H. Sunderbruch, M.D., President
Iowa Foundation for Medical Care

(Referred to the Reference Committee on Insurance and Medical Service.)

During the past week, every member of the Iowa Medical Society has received a progress report on activities of the Iowa Foundation for Medical Care. A copy of that report is included with this Supplemental Report. The Board of Trustees will not take the time of the House to detail the various steps undertaken by the Foundation since this House of Delegates approved Foundation Articles of Incorporation and By-Laws in 1971. The Board is pleased that the Foundation has made such a good beginning and looks forward to its even more active role in the delivery and financing of medical care.

Physicians cannot help but notice the large amount of coverage given to the foundation movement not only in medical publications but in the lay press. Obviously, the foundation movement is receiving great attention at all levels of organized medicine. In addition, agencies underwriting the cost of medical care, both public and private—health insurance companies, Blue Shield, federal and state authorities—are all anxious to cooperate with the Foundation and to varying degrees are offering their services in assisting the Foundation to undertake active and involved programs, particularly in the area of peer review.

It is recognized that many physicians are somewhat skeptical of the Foundation and concerned as to exactly how the Foundation will affect the practice of medicine in this state. Some physicians regard the Foundation as just another "control mechanism" and feel government agencies will merely manipulate and use the Foundation to further control physicians. Others believe the Foundation is moving too cautiously and slowly in establishing programs that will have a significant effect on the quality, quantity and cost of medical care. The Foundation Board of Directors is well aware of these feelings on behalf of Iowa physicians and has taken a slow and deliberate attitude toward the development of its programs.

The Board of Trustees has been notified that the Foundation Board of Directors is prepared to assume responsibility for "peer review" which has been suggested throughout the formation of the Iowa Foundation for Medical Care. Under this proposed procedure the IMS would disband its District Peer Review Committees but would retain its statewide committee. We are aware that the Foundation Board in considering appointments to its district peer review committees is following the suggestion of district councilors and wherever possible will retain physicians presently serving on IMS district peer review committees. The Board of Trustees recommends that peer review activities be assumed by the Iowa Foundation for Medical Care at the earliest mutually acceptable date.

Although it is said perhaps too often, the Foundation is a mechanism established and controlled by physicians which will enable the members of the medical profession who choose to belong to the Foundation to "manage rather than be managed." As stated earlier in this report, the enclosed bulletin from the Iowa Foundation for Medical Care details some of the more significant developments with regard to the Iowa Foundation. These points can be expanded upon before the Reference Committee and members of the Foundation Board of Directors will be present to answer any question that may arise.

(Resumption of the report by Dr. Wicks.)

Another item which has appeared on the Board of Trustees' agenda several times during the past months has to do with the potential and future role of physicians' assistants in the state. We all recognize that there will be many important decisions to be made with respect to the role of the PA in the field of medical care, and it is essential that they be made in light of one fact vital to the practice of medicine—that it is the physician who has the ultimate responsibility for diagnosing and treating the ills of his patients.

Because of its importance, a legal opinion has been prepared by the Society's legal counsel on the subject "The Practice of Medicine and Surgery—Delegation to Assistants." A copy of his opinion has been provided to the State Board of Medical Examiners for its use and guidance as rules and guidelines for physicians' assistants are developed by the state Physicians' Assistants Advisory Committee to the Board of Medical Examiners. A summary highlighting the salient points of the opinion are included in your packets, and it is anticipated that an "In the Public Interest" article on this subject will be published in a future issue (May 1972) of the JOURNAL.

The Society is fortunate that it has as its chief executive officer a man who is prominent in medical administration and is recognized for his achievements at the national level. Donald L. Taylor, Executive Vice President, is, and has been for several years, a member of the Advisory Committee to the Executive Vice President of the American Medical Association. Don is also a member of the Government Relations Committee of the American Society of Association Executives, which is responsible for maintaining continuing liaison with departments of the federal government on behalf of all member trade and professional associations. He serves on the Board of Directors of the Professional Convention Management Association. Don reports to the Board at each meeting on the various concerns of these organizations, so the officers of the Society have an inside track on what is occurring nationally in organized medicine and related fields.

At its most recent meeting, the Board of Trustees finalized recommendations on a matter of special interest to the House of Delegates, as well as to the general membership. In accordance with a previous action of the House of Delegates, your officers spent considerable time in studying various approaches to separating business and scientific sessions of the Iowa Medical Society. An active participant in these discussions was Dr. Kenneth Lister, President-Elect, and since the approval of these recommendations will have possible effects on the conduct of the scientific and business sessions during his term of office, we have asked that he comment on them.

SEPARATION OF MEETINGS—SECTION IV

K. E. Lister, M.D., President-Elect

(Referred to the Reference Committee on Articles of Incorporation and By-Laws.)

On April 14, a News Bulletin was mailed to all members of the Iowa Medical Society outlining a proposal of the Board of Trustees to separate business and scientific sessions of the IMS. The Standing Committee on Articles of Incorporation and By-Laws has received specific amendments to the Articles and By-Laws to implement the recommendations of the Board, and it will present them to the House for consideration and action.

Essentially, the amendments are designed to accomplish the following:

1) The Society shall hold an "annual" meeting of its House of Delegates in the spring of each year, and *may* schedule a "regular" meeting of the House each fall.

2) Likewise, in conjunction with the "annual" and, when applicable, "regular" sessions of the House of Delegates, a "general" meeting of the membership will be arranged.

3) The rights of the membership to "order a general referendum upon any question pending before or passed by the House of Delegates" or to vote on any question submitted to it by the House will be preserved.

4) Scientific programs may or may not be held in conjunction with the meetings of the membership or of the House of Delegates. The Board of Trustees would be authorized to designate the time and place of scientific sessions, which may be held in or outside of the State of Iowa, either alone or in cooperation with others.

It is clear that problems confronting the medical profession are increasing rapidly. In order to provide another forum for the careful deliberation of a greater volume of business and policy matters within a year's time, and to allow opportunity for action on current issues, it would be beneficial to schedule two meetings of the House of Delegates: an "annual" meeting each spring, which would be compulsory, and a "regular" meeting each fall, unless there would be an occasion when there would not be sufficient business to warrant a second session.

Physician attendance at the Annual Meeting has declined from 781 in 1962 to 426 in 1971. This latter figure is particularly distressing when it's acknowledged that it represents approximately 160 physicians who attend primarily because of their responsibilities as Delegates.

The number of exhibits has dropped from 71 in 1962 to 31 in 1971, and to 24 this year. In this connection, there is a trend among pharmaceutical houses to provide educational "grants" for scientific presentations, rather than to incur costs for designing, constructing and manning a commercial exhibit. As a matter of fact, during the past few months, the Society has had opportunity to receive, instead of exhibits, $700.00 in educational grants from two pharmaceutical companies. However, these funds have not been accepted because of a long-existing policy that exhibits were an important part of the Annual Meeting, and the IMS would not accept gifts to replace them. In light of existing circumstances, this position certainly deserves another look.

In accordance with previous actions of the House of Delegates, continuing contacts have been made with neighboring state medical societies—primarily Minnesota and Wisconsin—to explore the feasibility of arranging a combined state medical society scientific program. Although no definite commitments have been made, a genuine interest has been expressed in such a project.

In any event, the Board of Trustees feels the Society could and should provide a real service to its members by arranging unique scientific programs, in attractive recreational areas, in or outside of the state, either alone or in consort with other state medical societies. Obviously, something must be done by the Society to develop meetings that have greater appeal to the membership, and judging from the experiences of other state and national medical groups, it appears that physicians are eager for the opportunity to combine work with pleasure.

The Board of Trustees strongly recommends that the House of Delegates approve the proposed amendments to the Articles and By-Laws to permit a separation of the business and scientific meetings of the Iowa Medical Society. You can be assured that the Board will devise the most convenient and efficient schedule for conducting meetings of the House of Delegates and its reference committees, as well as general meetings of the membership; also, it will do everything possible to design scientific programs at places and at times that will attract great numbers of physicians, and will assure the Iowa Medical Society a prominent place in the increasingly important field of continuing medical education.

It is hoped that these new arrangements would permit us to at least "break even" on costs incurred in connection with scientific meetings and, perhaps, operate at a "profit," not a loss, basis.

Respectfully submitted,
R. L. WICKS, M.D., *Chairman*
L. J. O'BRIEN, M.D.
K. E. LISTER, M.D.
R. H. FLOCKS, M.D.
V. L. SCHLASER, M.D.
T. A. BURCHAM, M.D.
J. F. PAULSON, M.D.
J. F. BISHOP, M.D.

At the conclusion of the Board report Dr. Wicks presented a check for $13,084.32 to John W. Eckstein, M.D., Dean, U. of I. College of Medicine. The check was presented on behalf of the American Medical Association Educational Research Foundation. Dr. Eckstein acknowledged the gift and addressed the House of Delegates.

John W. Eckstein, M.D., Dean College of Medicine

Thank you, Dr. Wicks. I want to assure you that the College of Medicine certainly can use the money. We very much appreciate the annual contribution from AMA-ERF.

I understand, Mr. Speaker, that I may make a remark or two. Dean Hardin, Vice Provost for Health Affairs, asked me to read a letter to you:

Dear Dr. O'Brien and Members of the Iowa Medical Society:

I am unable to be with you today and have requested Dean Eckstein to read this letter, or portions of it, to you.

In January, 1972, the State Board of Regents unanimously adopted the following resolution proposed by Regent Shaw and seconded by Regent Perrin:

"The Board expresses the appreciation of the public

to alumni of the University of Iowa Medical School and other physicians who have compiled a remarkable record of giving in support of the School."

In his remarks, Regent Shaw noted that alumni and medical friends of the College of Medicine had given in the past year more money to the College than was given to any other state supported medical school by its alumni and medical friends.

We at the University are indeed grateful and add our thanks for your support.

With best personal wishes to all,

ROBERT C. HARDIN, M.D.

I would like to make a comment or two about the relationship between the Medical Society and the College of Medicine. I have had and the College has had frequent contact during the past year with, of course, members but particularly with the Executive Council, the officers and the staff.

I am very grateful for the supportive help the College has had during this time. There are many external pressures on our institution—and I am speaking of the Medical School and the Medical Society. These forces may tend to divide us as institutions and divide both institutions internally. Faculties have difficulty in reaching agreement on which of several courses to take in many issues. Practitioners disagree on which of several courses to take on somewhat similar issues. I would suggest that this is not the time for components of both institutions to go in different directions. We will have difficulty in reshaping public attitude directly; we can, however, by cooperative effort adapt to our current problems and retain as much control as possible over the future of our profession.

Medical educators and medical practitioners are facing the same pressures—that of consumerism. We must continue to work together in a creative fashion to provide the best of medical care for the public.

Again, many thanks to the members of IMS for the supportive help given to the College of Medicine during the past year. Thank you.

INFORMATIONAL REPORT ON THE SCANLON MEDICAL FOUNDATION/IOWA MEDICAL SOCIETY

Presented by R. L. Wicks, M.D., President
Scanlon Medical Foundation/Iowa Medical Society

The Scanlon Medical Foundation/Iowa Medical Society continues to establish new records each year. For example, in the 1971-72 academic year, to the best of our knowledge, more Iowans received Scanlon medical student loans than in any previous 12-month period in the Foundation's history. Twenty-six students have borrowed in excess of $29,000 since the last Foundation report was presented to the House of Delegates. Loans vary in amount from $600 to $2,000.

Foundation officers were saddened to learn recently of the death of one of the loan recipients, Mr. James D. Strait, a sophomore medical student from Lamoni. He was killed in an airplane accident in March. We are told that Mrs. Strait delivered their second child a week after her husband's death.

The following additional statistical highlights on the Foundation student loan program are submitted for your review:

- In the period from 4/5/71 to 4/5/72 new money in the amount of $22,000 has been deposited in the Foundation loan account.
- The principal and interest received in repayment of outstanding Foundation loans during this same period was $12,230.38.
- The total amount on loan to active medical students is $37,714.
- The money loaned by the Foundation since the inception of the program totals $422,151.52.
- The loaned amount which has been repaid since the inception of program totals $218,200.11.
- The money now in outstanding Foundation loans amounts to $203,951.41.
- The number of Foundation loans made during the life of the program is 263 and 148 of these have been repaid in full.
- The total amount on loan to the Foundation from physicians, county medical societies and specialty organizations is $50,325.55. This approach is always open to interested individuals and societies, even though we of course encourage unrestricted contributions.

It should be pointed out that 19 of the current loan recipients are in the sophomore and junior classes this year. These students will very possibly renew their loans for the coming year. This means the Foundation Board of Directors must exercise good judgment and think in the long range in administering the loan program inasmuch as the repayment cycle is rather extended; repayment does not begin for possibly as long as six years. The Board will review the loan program in detail during its Annual Meeting tomorrow.

Incidentally, we are attaching to this report for the first time a listing of those Iowans who are receiving Foundation loans. Their hometowns and school classifications are shown. These young men and women are candidates to enter practice in Iowa over the next few years; you may wish to initiate a contact with one from your part of the state.

So you will know in whose charge the affairs of the Foundation are, I would like to identify for you the current members of the Board of Directors; they are now 10 in number, one having been added at the last Annual Meeting. The directors are J. F. Paulson, M.D., Mason City; J. F. Bishop, M.D., Davenport; W. M. Krigsten, M.D., Sioux City; J. H. Sunderbruch, M.D., Davenport; L. H. Jacques, M.D., Iowa City; G. L. Baker, M.D., Iowa City; E. Howard Hill, Minburn; Ronald V. Saf, Des Moines; Donald L. Taylor, Des Moines, and yours truly. The composition of the Board will change slightly this Wednesday when the election of Society officers occurs.

The Board met most recently on November 4, 1971 in Iowa City. At this meeting the Board members conferred with three medical students and faculty representatives to gather impressions as to the general financial status of the student body. It was reported to the Board that funds had been found to cover all serious financial needs for the academic year.

In line with a request of the Board, the Foundation has sought increased exposure this year. A Foundation status report was prepared at the end of 1971. This report appeared initially as an "In the Public Interest" feature in the JOURNAL OF THE IOWA MEDICAL SOCIETY. It was subsequently printed in folder form and distributed to the medical students, to the state's daily newspapers and to other key audiences. It was also

sent with a covering letter to members of the Society inviting year-end contributions. An additional copy is provided with this report.

In addition to the Foundation loan program, the Board of Directors this year has authorized:

- Continued sponsorship of the Hawkeye Science Fair.
- Continued support of the Health Planning Council of Iowa.
- Provision of savings bonds awards to winners of an essay writing competition sponsored by the Governor's Committee on Employment of the Handicapped.
- Continued sponsorship of health-related exhibits at the Des Moines Center of Science and Industry.
- Continued participation in the Iowa State Fair Hall of Health.
- Continued sponsorship of the Baldridge-Beye Lecture at the Annual Meeting, as well as sponsorship of the Henry Albert Monthly Scientific Presentations in the JOURNAL OF THE IOWA MEDICAL SOCIETY.
- Continued participation in the program of the Iowa Chapter of the Student American Medical Association; this project is supported partially by a grant to the Foundation by The Prouty Company of Des Moines.

SCANLON MEDICAL FOUNDATION/
IOWA MEDICAL SOCIETY
1971-72 STUDENT LOAN PARTICIPANTS

STUDENT	HOME TOWN	SOPH.	JR.	SR.
Bergstrom, Thomas	Onawa			X
Bohle, Daniel J.	Sumner			X
Bright, Douglas Alan	Iowa City		X	
Bures, Frank Alan	Des Moines	X		
Chandler, Melvin E.	Onawa		X	
Chesney, Nelson H.	Newell	X		
Cobb, Victoria Rae	Fort Dodge	X		
Field, Lynn Edward	Logan	X		
Froehlich, Ricky T.	Everly		X	
Fulton, Michael N.	Columbus Junction		X	
Haygood, Jerry W.	Bettendorf	X		
Hennessee, John L.	Davenport		X	
Hoherz, David G.	Waterloo			X
Kinkead, Lewis R.	Cedar Rapids	X		
Messingham, Mark L.	Waterloo			X
Moser, Paul H.	Burlington		X	
Plank, Carl Joseph	Iowa City		X	
Ragland, Douglas W.	Des Moines		X	
Reibold, Robert J.	Iowa City		X	
Shannon, Roy C.	New Market			X
Shaw, Janell N.	Lone Rock	X		
Shives, Thomas C.	Newton	X		
Smazal, Stan, Jr.	Davenport			X
Thomas, David L.	Camanche	X		
Williams, James Joseph	Ottumwa	X		

James D. Strait, 27M Meadow Brook Court, home town Lamoni, Iowa, Sophomore, killed in plane accident, March, 1972.

SCANLON MEDICAL FOUNDATION/
IOWA MEDICAL SOCIETY
INCOME AND EXPENSE STATEMENT—
DECEMBER 31, 1971

INCOME:		
Contributions and Memorials	$ 1,442.00	
Henry Albert Trust	9,085.26	
Rubella Eradication Program	3,649.50	
Interest on Loans	2,941.85	
Interest on CNB Golden Passbook Savings	3,711.20	
Special Gift:		
The Prouty Company	250.00	
Total Income		$ 21,079.81
EXPENSES:		
Projects—		
Hawkeye Science Fair	$ 3,600.00	
Health Planning Council of Iowa	2,500.00	
Governor's Committee on Employment of Handicapped	131.25	
Des Moines Center of Science and Industry	464.59	
State Fair Hall of Health	405.23	
Pamphlets on Alcoholism (AMA)	212.50	
Iowa Chapter, Student AMA	520.00	
Baldridge-Beye Lecture (IMS Annual Meeting)	287.50	
Monthly Scientific Articles in IMS Journal	2,000.00	
Iowa Wrestling Study	450.00	
Administrative—		
Iowa State Bank & Trust Company	300.00	
Interest Paid on Loans from Physicians	1,556.92	
Legal Services	500.00	
Audit and Tax Return	50.00	
Salary Allotment (1970)	2,400.00	
Salary Allotment (1971)	3,600.00	
Board Meetings and Travel Expense	482.83	
Office Supplies and Postage	419.11	
Total Expenses		$ 19,879.93
Net Gain for 1971		$ 1,199.88

SCANLON MEDICAL FOUNDATION/
IOWA MEDICAL SOCIETY
BALANCE SHEET—DECEMBER 31, 1971

ASSETS:		
Iowa State Bank & Trust Company	$ 3,670.92	
Central National Bank & Trust Company	3,837.17	
CNB Golden Passbook Savings	93,711.20	
Notes Receivable from Medical Students	193,639.96	
Student Nurse Loan Fund	3,701.63	
American Scientific Corporation (100 shares)	60.00	
Total Assets		$298,620.88
LIABILITIES AND NET WORTH:		
Notes Payable to Physicians & County Medical Societies	$ 50,325.55	
Note Payable to IMS	4,000.00	
Net Worth:		
Balance 1-1-71 $243,095.45		
Add 1971 Gain 1,199.88	$244,295.33	
Total Liabilities and Net Worth		$298,620.88

- Provision of a $450 grant to C. W. Tipton, Ph.D., University of Iowa, to permit further research on the wrestling weight determination project begun several years ago.

In addition to the foregoing, the Foundation helped to support the recent and successful Conference on Medical Aspects of Sports presented in Des Moines by the Iowa Medical Society and the Iowa High School Athletic Association. The Foundation has also authorized a $300 grant to assist four high school students in their summer participation in one of two Iowa workshops on alcoholism.

In concluding my remarks, let me say the Foundation must have ongoing support from Iowa physicians if it is to sustain and expand its program. The help received in 1971 in the form of contributions and memorials was down somewhat over preceding years. I am extremely hopeful that you as representatives of medical leadership in Iowa will assist the Board this coming year in securing the financial support the Foundation needs.

May I close this report by following the tradition of presenting a representative of the medical student body at the University of Iowa who is a recipient of a Scanlon Foundation loan. May I present Mr. Roy Shannon of New Market, who is a senior medical student.

Mr. Shannon spoke briefly and expressed appreciation on behalf of the Foundation Loan recipients and urged continued support of the Foundation by Iowa physicians.

JUDICIAL COUNCIL

E. E. Gamet, M.D.
Chairman, Judicial Council

(Referred to the Reference Committee on Articles of Incorporation and By-Laws.)

Under IMS Articles of Incorporation and By-Laws, the Judicial Council reviews membership applications to determine if a physician is eligible for whatever category of membership that is being requested. The Council has noted that the section of the Articles of Incorporation and By-Laws dealing with Life Memberships could be questioned as to the necessity for a physician to be a current member of the Iowa Medical Society in order to be eligible for life membership. Although in practice Life Membership has been granted based on current membership in the Iowa Medical Society, this is not clearly spelled out in the Articles of Incorporation and By-Laws. The Judicial Council therefore recommends that the Articles of Incorporation and By-Laws be amended to make it clear that a physician must be a current member of the Iowa Medical Society in order to be eligible for Life Membership unless his dues are waived by the Council due to financial hardship. Appropriate amendments to the Articles have been referred to the Standing Committee on Articles of Incorporation and By-Laws. A Supplemental Report of the Standing Committee will present the specific language needed to carry out the recommendation of the Judicial Council.

The Judicial Council further recommends that the House of Delegates consider a change in the By-Laws to establish a minimum attendance requirement in order for Councilors to continue to serve as active members of the Judicial Council.

Respectfully submitted,
E. E. GAMET, M.D., *Chairman*
C. L. KELLY, JR., M.D.
H. G. MARINOS, M.D.
J. M. RHODES, M.D.
P. J. MONNIG, M.D.
H. E. WICHERN, M.D.
A. M. DOLAN, M.D.
J. E. TYRRELL, M.D.
J. F. COLLINS, M.D.
K. A. GARBER, M.D.
HORMOZ RASSEKH, M.D.
E. E. LINDER, M.D.

At this point Dr. Caraway introduced Dr. Roger D. Mason, President, Nebraska Medical Association, and he was recognized by the Delegates.

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Supplemental Reports of Standing Committees

NOMINATING COMMITTEE

The Nominating Committee of the Iowa Medical Society met on Sunday, March 26, and agreed on the following slate to be presented to the House of Delegates today.

President-Elect	R. H. Flocks, M.D., Iowa City R. S. Gerard, M.D., Waterloo (Withdrawn as a candidate at his request)
Vice President	J. E. Griffin, M.D., Knoxville Erling Larson, Jr., M.D., Davenport
Secretary (3 year term)	V. L. Schlaser, M.D., Des Moines
Treasurer (3 year term)	T. A. Burcham, M.D., Des Moines
Speaker of the House of Delegates	L. D. Caraway, M.D., Amana H. L. Skinner, M.D., Carroll
Vice Speaker of the House of Delegates	L. D. Caraway, M.D., Amana R. L. Kent, M.D., Fort Madison H. L. Skinner, M.D., Carroll
Trustee (3 year term)	G. H. Ashline, M.D., Keokuk W. A. Castles, M.D., Dallas Center J. F. Paulson, M.D., Mason City
Delegate to AMA (2 year term)	L. J. O'Brien, M.D., Fort Dodge L. W. Swanson, M.D., Mason City
Delegate to AMA (2 year term)	C. E. Radcliffe, M.D., Iowa City J. M. Rhodes, M.D., Pocahontas (Withdrawn as a candidate at his request) H. J. Smith, M.D., Des Moines
Councilor, 3rd District (3 year term)	J. M. Rhodes, M.D., Pocahontas
Councilor, 4th District (To complete an unexpired term, term to expire at Annual Meeting 1973)	P. J. Monnig, M.D., Sioux City
Councilor, 5th District (3 year term)	H. E. Wichern, M.D., Des Moines
Councilor, 6th District (To complete an unexpired term, term to expire at Annual Meeting 1973)	A. M. Dolan, M.D., Waterloo
Councilor, 10th District (3 year term)	E. E. Gamet, M.D., Lamoni
Blue Shield Liaison Delegates to IMS (Two to be elected)	R. C. Larimer, M.D., Sioux City S. P. Leinbach, M.D., Belmond C. W. Seibert, M.D., Waterloo J. D. Ver Steeg, M.D., Des Moines

Subsequent to the meeting of the Nominating Committee but prior to the mailing of a News Bulletin announcing the nominees, official word was received from R. S. Gerard, M.D., that he wished to withdraw as a candidate for President-Elect. Likewise, the Iowa Medical Society was later notified that J. M. Rhodes, M.D., wished to withdraw as a candidate for AMA Delegate.

Additional nominations may be accepted from the floor after which the Speaker of the House of Delegates will declare nominations closed.

The Articles of Incorporation and By-Laws require that for candidates to be unopposed for nomination they must be unanimously approved by the Nominating Committee. Although it is recognized that it is desirable to have two candidates as a minimum for each of the proposed offices, the Nominating Committee is submitting but one candidate for some offices, since these were the only names formally proposed to the Nominating Committee and were unanimously approved by the Nominating Committee.

It will be noted that there are four candidates for the two offices of Blue Shield Liaison Delegate to the Iowa Medical Society. Under the Articles of Incorporation and By-Laws of the Iowa Medical Society, the Liaison Committee shall submit to the Nominating Committee the names of four or more candidates for the two positions of Liaison Delegate. Therefore, under the IMS By-Laws, it is mandatory that four or more names be submitted to the Nominating Committee for these offices. These names are merely received by the Nominating Committee and submitted as part of its report to the House of Delegates.

As a matter of information, the Nominating Committee feels strongly that those reporting on district caucuses should be requested to submit a name as a candidate for a specific office only when it has been determined that the candidate is available and would consent to serve in that office, if elected.

Respectfully submitted,
J. L. GARRED, M.D., *Chairman*
D. J. SOLL, M.D.
D. J. OTTILIE, M.D.
G. H. WEST, JR., M.D.
R. J. DAWSON, M.D.
D. J. WALTER, M.D.
T. E. KIERNAN, M.D.
K. J. JUDIESCH, M.D.
W. B. KASISKE, M.D.
S. A. SMITH, M.D.
J. D. KIMBALL, M.D.
A. L. SCIORTINO, M.D.
W. A. SEIDLER, JR., M.D.

The following physicians asked that their names be withdrawn as candidates—C. E. Radcliffe, M.D., Iowa City, and J. M. Rhodes, M.D., Pocahontas, for the position of AMA Delegate; L. D. Caraway, M.D., Amana, for the position of Vice Speaker of the House. Nominations from the floor were requested. J. M. Rhodes, M.D., Pocahontas, was renominated for the position of AMA Delegate and again requested that his name be withdrawn. The Report of the Nominating Committee was adopted as amended.

NECROLOGY COMMITTEE

(The Speaker asked the members of the House of Delegates to stand while E. E. Gamet, M.D., Chairman of the Judicial Council, read the names of IMS members who died in 1971. The list appears on page 343 of this issue of the JOURNAL.)

COMMITTEE ON ARTICLES OF INCORPORATION AND BYLAWS

(Referred to the Reference Committee on Articles of Incorporation and By-Laws.)

The Judicial Council is recommending that the Articles of Incorporation be amended to clarify the provision dealing with "Life Membership." The amendment will make it clear that a physician to be eligible for Life Membership must be a current member of the Iowa Medical Society unless the Judicial Council waives his current dues because of financial hardship. Accompanying as Exhibit A is an appropriate amendment to the Articles of Incorporation which, if adopted, will implement the recommendation of the Judicial Council.

The Board of Trustees is recommending to the House of Delegates that the Articles of Incorporation and By-Laws be amended to permit separating business and scientific sessions of the Iowa Medical Society. The Committee on Articles of Incorporation and By-Laws has considered what changes in the Articles and By-Laws are necessary to implement this recommendation, if adopted, by the House of Delegates. Attached as Exhibit B-1 are amendments to the Articles of Incorporation and as Exhibit B-2 are amendments to the By-Laws which, if adopted, will implement the recommendations of the Board of Trustees.

In accordance with the Articles of Incorporation and By-Laws the Standing Committee on Articles of Incorporation and By-Laws has reviewed the proposed amendments and finds them acceptable if approved by the House.

EXHIBIT A

Resolved, That Article III, Section 3 of the Articles of Incorporation of the Iowa Medical Society, as amended, be and hereby is further amended by revising the first sentence thereof to read as follows:

"Any physician who has practiced medicine for fifty years and has been a member of this Society for thirty years may be elected to life membership by the House of Delegates, providing his county medical society votes to present his name for such life membership in the Society and providing further that his regular and special dues for the current year have either been accepted at the headquarters of the Society or have been waived by the Judicial Council because of financial hardship."

EXHIBIT B-1

Resolved, That the Articles of Incorporation of the Iowa Medical Society, as amended, be further amended in each of the following respects:

1. Amend Article I by adding the following sentence at the end thereof:

"Scientific meetings of the Society shall be held at such time and place in or outside of the State of Iowa, either alone or in conjunction with others and in such manner as its By-Laws provide or as its Board of Trustees may designate."

2. Amend Article IV, Section 8 by deleting the word "general" from the second sentence thereof and substituting the word "annual."

3. Amend Article IV, Section 10 by:

(a) Deleting the first sentence and substituting therefor the following:

"The Secretary, acting with the Committee on Scientific Work, shall prepare and issue the program for and attend all annual, regular and special meetings of the Society and of the House of Delegates; he shall keep minutes of their respective proceedings in separate record books; he shall place in safekeeping all papers belonging to the Society except such as properly belong to the Treasurer."

(b) Deleting the fifth sentence thereof and substituting the following therefor:

"He shall provide for the registration of members and delegates at all annual, regular and special meetings as well as at all scientific meetings."

4. Amend Article V, Section 1 by deletion and substitution therefor of the following:

"Section 1. The Society shall hold an annual meeting in the Spring and may hold a regular meeting in the Fall during each of which there shall be held not less than one general meeting which shall be open to all registered members and guests."

5. Amend Article V, Section 2 by adding the following sentence at the end thereof:

"The Board of Trustees, in consultation with the President, shall determine whether a regular meeting shall be held in any year and, if so, shall determine the time and place of such regular meeting. The Board of Trustees, in consultation with the President, shall determine the program for all general meetings of the Society."

6. Amend Article V, Section 3 by deleting the words "session of the" from the third sentence thereof.

7. Amend Article V, Section 5 by inserting the words "the annual and" after the words "apply to" and before the words "regular meetings" in the second sentence thereof.

8. Amend Article V, Section 6 by deletion thereof and substitution of the following:

"Section 6. Notices of the annual and regular meetings of the Society and the House of Delegates shall be given to all members in writing at least ten days prior to the date of such meeting, which notice may be given in the JOURNAL OF THE IOWA MEDICAL SOCIETY; the notices of special meetings shall be given to the members in writing at least five days before the date of said meeting, all to be done by regular mail addressed to the members' last known addresses as shown by the files and records in the offices of the Society."

9. Amend Article VI, Section 2 by inserting "and regular" after the word "annual" and before the word "meetings."

10. Amend Article VI, Section 4 by inserting ", regular" after the word "annual" and before the words "or special."

11. Amend Article VI, Section 8 by total deletion and substitution therefor of the following:

"Section 8. The House of Delegates shall meet at the time and place of the annual and regular meetings of the Society and shall have power to carry out the purposes and objects of this Society."

12. Amend Article X by substituting ", regular" after the word "annual" and before the words "or special."

13. Amend Article XII by deleting the first sentence thereof and substituting the following:

"These Articles of Incorporation may be amended at any annual or regular meeting of the corporation or Society, or at any special meeting called for that purpose, said amendments having been first submitted and referred to a committee for study and report, by a two-thirds vote of the House of Delegates present and voting at such meeting, but if amended at a special meeting, notice of the time and place of such meeting, together with a copy of the proposed amendment, shall be sent to each member as shown by the books of the said corporation or Society, at least thirty days prior to the meeting at which such proposed amendment is to be acted upon."

EXHIBIT B-2

Resolved, That the By-Laws of the Iowa Medical Society as amended be further amended in each of the following respects:

1. Amend Chapter I, Section 2 by inserting ", regular" after the word "annual" and before the words "or special" in the first sentence thereof.

2. Amend Chapter I, Section 4 by inserting ", regular" after the word "annual" and before the words "or special" in the first sentence thereof.

3. Amend Chapter II, Section 1 by inserting in the last sentence thereof, the phrase "or a meeting of the House of Delegates held at the annual meeting" after the words "general meeting" and before the words ", at such time."

4. Amend Chapter III, Section 1 by deletion and substitution therefor of the following:

"Section 1. The House of Delegates shall meet at the time and place of the annual and regular meetings of the Society. It shall fix its hours for meeting so as not to conflict with the first general meeting of the Society, or with any meeting held for the address of the President, President-Elect or annual orations. If the business interests of the Society and the profession require, the House may meet in advance of the general meeting or remain in session after final adjournment of the general meeting of the Society. It may be called into session by the President at any time, or upon written petition of twenty delegates, not more than four of whom are from any one county."

5. Amend Chapter III, Section 4 by inserting ", regular" after the word "annual" and before the words "or special" in the last sentence thereof.

6. Amend Chapter III, Section 6 by deleting the last two sentences and substituting therefor the following sentence:

"In each odd-numbered year, it shall elect one alternate delegate to the House of Delegates of the American Medical Association."

7. Amend Chapter III, Section 11 by deleting that section in its entirety.

8. Amend Chapter V, Section 5 by deleting the words "Annual Meetings" and substituting therefor the words "meetings of the House of Delegates."

9. Amend Chapter V, Section 6 by deleting the present section and substituting therefor the following section:

"Section 6. The Committee on Scientific Work shall consist of four members, the President, Secretary, Treasurer, and President-Elect, of which committee the President shall be the chairman, and shall determine the character and scope of the proceedings of the Society for each scientific meeting, subject to the instructions of the House of Delegates, or of the Society, or to the provisions of the Articles of Incorporation and By-Laws. Thirty days previous to each scientific meeting it shall prepare and issue a program announcing the order in which papers, discussions and other matters shall be presented."

10. Amend Chapter V, Section 7 by inserting the words "or regular" after the word "annual" and before the word "meeting" in the last sentence thereof.

11. Amend Chapter VI, Section 5 by deleting the first seven words thereof and inserting therefor the following words:

"During the intervals between the annual and regular meetings."

12. Amend Chapter X, Section 1 by deleting the third sentence thereof and substituting the following:

"It shall publish as fully as the Board of Trustees deems wise and practicable, the business proceedings of the annual, regular and special meetings, the scientific proceedings of the scientific meetings, and proceedings of all official bodies of the Society."

13. Amend Chapter XII, by inserting ", Regular" after the word "Annual" and before the words "or Special."

Respectfully submitted,
J. F. BISHOP, M.D., *Chairman*
L. R. FULLER, M.D.
D. A. HOWELL, M.D.
K. J. JUDIESCH, M.D.
E. G. KETTELKAMP, M.D.

COMMITTEE ON LEGISLATION

(Referred to the Reference Committee on Legislation and Miscellaneous Business.)

Again this year, as has been a regular occurrence in recent years, there has been a huge increase in the number of legislative proposals dealing with health care. This increase has not been limited to the national congress but is also very apparent in the Iowa legislature. We feel that every Iowa physician needs to become aware of the impact that legislation can have on his individual practice of medicine.

The IMS Legislative Program can only be effective if its members are effective in their liaison with elected officials. With effective local support we are able to promote and enact health laws favorable to the public interest and to oppose and prevent passage of damaging legislation. We would hope that every physician and county medical society would become politically and legislatively active and earn the support of their elected officials. An effective means of accomplishing a good rapport with your elected officials is by inviting them to attend one or two county medical society functions, at which time the individual member physicians and legislators can become better acquainted. As in past reports, this report will be provided in two sections.

FEDERAL LEGISLATION

One of the most controversial problems before Congress is national health insurance. Three major national proposals, i.e., (1) AMA's Medicredit; (2) the Nixon Administration Proposal; (3) the Kennedy Bill, are receiving the greatest amount of legislative attention. As of the last report, AMA's Medicredit was leading with 143 sponsors, followed closely by the Kennedy proposal with over 120 sponsors. There is real question as to whether this subject will be considered by Congress this year. It is felt that national health insurance programs will probably not receive consideration until after the presidential election this fall. The Nixon Administration continues to push HMO's and again in this area Senator Kennedy has introduced legislation in addition to proposals by several other Congressmen. Hearings are being held on HMO's and the AMA has testified that pending legislation should not be adopted until the HMO concept has been adequately tested on an experimental basis.

H.F. 1, the Social Security Amendment, has passed the House and is now under executive consideration by the Senate Finance Committee. H.R. 1 would modify the Medicare and Medicaid programs and would include a provision for Peer Review Standards Organizations (PRSO). The Senate Finance Committee has also adopted a recommendation that chiropractic services be provided under the Medicare program. The AMA and IMS continue to work against inclusion of chiropractic under federal funded health programs.

There are many other national proposals which are

being followed closely by the AMA and its Washington staff such as malpractice, drug abuse, and a separate cabinet level department of health.

Representatives of the IMS made an annual visit to Washington on March 11 through 13, in conjunction with the AMA/AMPAC Public Affairs Workshop. This annual trip has been and continues to be a worthwhile project to assist the IMS in maintaining excellent rapport between the physicians of Iowa and the Iowa Congressional delegation.

STATE LEGISLATION

This year the Legislative Committee instituted a regular bulletin to all legislative contact men and county society presidents on a bi-weekly basis in an attempt to keep physicians better informed on matters of legislation which are of interest to the IMS and to the profession. The adjournment of the legislature on Friday, March 24, marked the end of the 64th General Assembly which, taken together with the first session of 1971, constituted the longest single legislative period ever recorded in Iowa. To provide some impression of the enormity of the task faced by the Legislative Committee during the 64th General Assembly, please consider these statistics. There were a total of 1,854 bills introduced during the first and second sessions of the 64th General Assembly, 811 Senate bills and 743 House bills. The Iowa Medical Society, through its Legislative Committee followed 262 of these bills, which amounts to 14 per cent of the total. All of these bills were not, of course, part of the IMS legislative program, but because of the nature of the bill, did require the attention of the Committee on Legislation. Due to the length of this list, we will review only some of the more major items presented to the legislature. We will be prepared at the Reference Committee hearing to comment on any item of legislation in which the Medical Society had an interest. The Society establishes a priority system for dealing with specific bills and with each session the question of priority becomes more crucial and difficult to answer. The Committee feels this has been a very successful session for the IMS. During this General Assembly most of the legislation supported by the Society was enacted, and those measures opposed or questioned by the Society were either defeated or not brought to a final vote.

Corporate Health Care (S.F. 239 and H.F. 525): This bill would permit the corporate practice of medicine by other than physicians in the State of Iowa, and constituted the major health issue in the 64th General Assembly. Senate File 239 was first introduced by Senators Doderer and Messerly in 1971 and was assigned to the Commerce Committee in the Senate. The bill was brought out of the Commerce Committee and placed on the regular Senate Calendar in 1971. However, the Senate adjourned before the measure could be debated. After adjournment in 1971, all bills were returned to committee. Thus, Senate File 239 was subjected to Committee review again in 1972 before becoming eligible for consideration by the full Senate.

In the interval, between the 1971 and 1972 sessions, the IMS conferred with such interested groups as the Iowa Hospital Association, the Iowa Insurance industry and Blue Cross and Blue Shield in an effort to draft legislation acceptable to all concerned. After considerable effort it was found that the groups could not reach total agreement. In an effort to move the matter forward, the IMS legal counsel with the approval of the Executive Council drafted a bill acceptable to the IMS. This legislative draft was presented to interested legislators, including the Chairman of the Senate Commerce Committee. The IMS bill differed from Senate File 239 in three basic ways. (1) Physician service would be provided through contractual relationships with groups of Iowa physicians rather than by having physicians as employees of the corporation. (2) Enrollees would have the option of whether to be members of an HMO or have health care coverage provided in some other manner. (3) Authorization for establishment of HMO's would be a joint responsibility of the Iowa Insurance Commissioner and the Iowa Health Commissioner, in order that health matters would be determined by the Commissioner of Health and insurance matters would be determined by the Commissioner of Insurance. After much maneuvering, Senate File 239 was in effect killed by the Senate Commerce Committee and the Committee adopted a resolution calling for an Interim Committee to study HMO's.

In a surprise move the Senate Committee on State Government then decided to get into the act by bringing out an HMO bill, Senate File 1212, modeled after the Tennessee law, which is only one and a half pages long and very broad in scope. This bill was then advanced to the Senate Steering Committee calendar and subsequently debated by the full Senate. During debate, the Iowa Medical Society promoted an amendment by Senator Charlene Conklin to limit HMO service to those provided by physicians solely under arrangements with one or more groups of practitioners, rather than having the physician be an employee of the corporation. This amendment was defeated by a 19-30 vote. After much parliamentary maneuvering, the bill was eventually returned to the State Government Committee which in effect killed the bill for the session. The IMS never opposed HMO legislation, but rather supports it, providing that physicians are permitted to offer medical services as other than employees of the corporation.

The Legislative Committee now requests some direction from the House of Delegates as to how to proceed. There are at least two alternatives. One is to again contact those groups having an interest in HMO's and take the lead in trying to draft and present acceptable legislation allowing HMO's in Iowa. We are not at all sure that an agreement on satisfactory language can be reached by the concerned groups.

The second possibility is simply to continue to support HMO legislation and during the next session of the legislature attempt to see that eventual enactment does not permit employment of physicians by a lay controlled corporation. There are at least two other aspects that should be considered in the deliberation on IMS strategy. Very likely there will be federal HMO legislation which could pre-empt state law, and federal legislation would very likely contain a provision to include employment of physicians. Also, the Iowa General Assembly has approved an interim legislative study committee on HMO's and this committee will undoubtedly recommend some type of bill to the 65th General Assembly. The IMS will request an opportunity to appear before the special HMO legislative study committee. The key issue has become the employment of physicians rather than the passage of HMO legislation. It is especially important to note that those legislators most active in support of HMO leg-

islation indicated they would rather see no HMO bill enacted rather than accept a bill which did not permit employment of physicians. The Committee on Legislation would solicit guidance from the House of Delegates as to a legislative posture on the matter when it is considered during the coming months.

Renal Disease Program (S.F. 590): This bill provides $30,000 for a Renal Disease Program and creates an advisory committee. Originally the proposal asked for a $50,000 yearly appropriation but due to the tight fiscal situation of the State, the legislature reduced that figure. The advisory committee will be composed of 11 persons, two members of which represent the Iowa medical physicians involved in renal dialysis and transplantation. The bill was supported by the IMS and has been signed by the Governor.

Public Health Commissioner (S.F. 224): Removes requirements from the Code that the Commissioner of Public Health be a physician trained in public hygiene and sanitation. This bill was very strongly opposed by the IMS but passed the Senate in 1971 and remained before a House committee in 1972. An attempt was made to bring the bill out of the House Social Services Committee but the Social Services Committee felt that the Commissioner of Health should be a physician and voted against bringing the bill to the House floor for debate.

Environmental Control (S.F. 85): An act to create a Department of Environmental Quality, consolidates air quality, water quality, solid waste and chemical disposal as well as including control over disposal of radioactive wastes plus handling and storage and radioactive materials. The bill was passed by the Senate and amended in the House to include language regarding disposal, handling and storage of radioactive material. The amendment also required licensing for those handling radioactive materials. Due to conflicts between the House and Senate, the bill was sent to a Conference Committee. The IMS was successful in getting the Conference Committee to delete from the bill the section which would have required licensing of persons, including physicians, handling radioactive materials.

Prescriptions (S.F. 1129): This bill would have allowed pharmacists to substitute generic equivalency drugs without pre-authorized agreement with a physician. The bill was sent to the Senate Social Services Committee and was not brought out for debate. The IMS opposed the bill.

Drugs (S.F. 1192): The bill rescheduled certain drugs listed in the Controlled Substances Act and requires licensing of some distributors. It also included the term "device" as being within the definition of prescription drug. "Device" is defined in the Code as meaning an instrument, apparatus or contrivance intended for use in the diagnosis, cure, treatment or prevention of diseases in humans. This definition could include practically all of the equipment used by a physician in his practice and all of the types of supplies sold by non-pharmacists such as braces, traction outfits, crutches, beds, etc. Under this bill it would have been necessary for an individual to get such equipment only from a licensed pharmacist by prescription of the physician. The IMS was successful in getting the language pertaining to "device" amended out of the bill prior to final enactment.

Anatomical Act (H.F. 556): Provided that damages can be claimed in an action arising out of the rendition of services under the Uniform Anatomical Gift Act, only if the service was negligently performed. The IMS was responsible for the original language and introduction of this bill primarily because of questions relating to blood transfusions. It was passed by both houses and is awaiting the signature of the Governor.

Health Services Commission (H.F. 518): This bill, known as the "Certificate of Need" bill, would establish an Iowa Health Services Commission within the Department of Health to review and approve proposed construction and certain improvements of health care facilities in the State. The bill was sent to the House Social Services Committee and not brought up for debate. The Iowa Hospital Association supported the bill and will undoubtedly seek to have it re-introduced in 1973. The Legislative Committee, based on action of the Executive Council, has opposed "Certificate of Need" legislation but recognizes that several other state medical societies have supported certain aspects of "Certificate of Need" when it does not include "medical services" or physicians' offices.

Optometry. (H.F. 524): An act to establish a state Board of Optometry and restructure the operation, duties and enforcement procedures of the present board. As originally introduced there were some objections from the IMS, but by working with the sponsors of the bill, the IMS was able to eliminate those objectionable portions. The bill was passed by the House but remained in Senate Committee. Included in the House passed bill was a section which is of importance to members of other health professions. The House amended the bill to include lay people on the Board of Optometric Examiners.

This bill, along with bills calling for the licensing of hearing aid dealers and psychologists, led to the passage of HCR 126 calling for an interim committee to study all professional and occupational licensing boards and those persons that are not now licensed. Areas this committee will consider include (1) inclusion of lay members on licensing boards; (2) one central licensing authority; and (3) study of the funding of various licensing boards and how they spend funds. The study committee resolution has been approved and the Legislative Council will appoint a committee to study licensing at its next meeting.

Chiropractic (H.F. 383): There were many bills introduced dealing with chiropractic. Of most import to the Iowa Medical Society was the introduction of H.F. 383 which is an act to require one licensed in the healing arts to be a person graduated from a school or college accredited by an agency recognized by the National Commission on Accreditation and the Office of Education, Department of Health Education and Welfare. At the present time there is no chiropractic school in the U. S. accredited by either of these agencies. Lack of such accreditation would in effect eliminate the licensing of new chiropractors in the state. This bill was favored by the IMS.

As indicated it is impossible to list all the bills that received attention by the Committee on Legislation, legal counsel and IMS staff. Again, this has been an attempt to give you an idea of the complex and diverse nature of the legislation presented to the committee.

Finally, the Legislative Committee is aware that present Iowa law excludes physicians from being eligible to serve on county hospital boards of directors. We recognize that physicians are increasingly being added to the boards of private hospitals and are serv-

ing in a laudable fashion. The Committee recommends that one priority item for 1973 be to seek a change in Iowa law to permit physicians to serve on county hospital boards of directors.

Respectfully submitted,
JOHN KELLEY, M.D., *Chairman*
J. L. BEATTIE, M.D.
C. L. BEYE, M.D.
R. M. CHAPMAN, M.D.
G. R. CLARK, M.D.
W. R. HORNADAY, JR., M.D.
C. N. HYATT, M.D.
J. E. KELSEY, M.D.
ERLING LARSON, JR., M.D.
R. D. LIECHTY, M.D.
K. E. LISTER, M.D.
W. C. MCCORMACK, M.D.
W. J. MORRISSEY, M.D.
L. J. O'BRIEN, M.D.
V. L. SCHLASER, M.D.
G. I. TICE, M.D.

Dr. Kelley summarized the preceding report and introduced Dr. Erling Larson, Chairman of the Iowa Medical Political Action Committee. Dr. Larson commented as follows:

Erling Larson, Jr., M.D., Chairman Iowa Medical Political Action Committee

Mr. Speaker, Mr. President, Dr. Kelley, Delegates, Distinguished Guests: I want to thank you for allowing me to take just a minute or two to talk about the situation of IMPAC in Iowa.

This year IMPAC, AMPAC and organized medicine as a whole, are faced with challenges that at times seem almost overwhelming. The daily attacks in the mass media on medicine continue. Certain politicians enjoy using medicine as a whipping boy. At times it makes you feel almost un-American just to continue the fight for freedom and dignity for the physician and for the patient.

In addition, in Iowa this year we are faced with the redistricting of all of the Congressional Districts. Due to the recent action of the Supreme Court, all of the State legislative subdivisions have also been redistricted. And, with the annual sessions of the Iowa Legislature, many competent and able legislators find they no longer can afford the sacrifice involved in serving. This means we are going to have to find new friends of freedom, and we have to support them.

As John mentioned, in the past our goals with IMPAC have been primarily on the national level. With increasing medical significance to the State Legislature, more and more of our funds are being directed toward support of those candidates in the Iowa Legislature. However, I don't want to paint a picture of doom and gloom, because I don't think everything is lost. I feel that a strong and united Iowa Medical Society, particularly one that will back up its beliefs with concerted political action, can and will succeed.

To quote my old friend, Leonard Read of the Foundation for Economic Education: "There is magic in believing. The person of little faith will fail where a believer might succeed. The devotee of freedom who throws in the sponge because he cannot imagine how our societal Humpty-Dumpty can be put back together again is no help to the cause. Look, rather, to the man with faith and the will to prevail."

Fortunately, the men and women of the Iowa Medical Society have not thrown in the sponge. The response to IMPAC is the greatest in the history of the Iowa Medical Society. Never before have we had so many members at this time of the year, and we are within 50 members of an all-time record high for the entire year. Not only have we been encouraged by the response of the rank-and-file membership but, as always, the leaders of the Iowa Medical Society are in the forefront.

Once again our President-Elect is a man with faith and the will to prevail. It gives me great pleasure at this time to present him with a special IMPAC pin which is given in recognition of those members who have given $99 or more.

Dr. Larson then presented a special IMPAC pin to Dr. K. E. Lister and a gavel to Dr. Otis D. Wolfe on behalf of the members of the Board of Directors of IMPAC for his outstanding service as Chairman, Iowa Medical Political Action Committee, from 1965 to 1971.

In conclusion, may I say that I am humbly proud to be able to serve as Chairman of IMPAC. On behalf of the IMPAC Board of Directors, I want to thank each and every one of you for your magnificent support to date.

I hope that those of you who, through oversight or delay, have not yet made your 1972 contribution will do so before the conclusion of the State meeting, so that we can proceed with a united medical front in the difficult political days ahead.

If one day we awaken in America with our freedom lost, let us at least be able to tell our children and our children's children that we stood as men, we fought the battle with our maximum resources. And let's never, never have to explain to them that we gave up our freedom and the medical heritage that was entrusted to us, with no more than a whimper. Thank you.

MEDICO-LEGAL COMMITTEE

(Referred to the Reference Committee on Legislation and Miscellaneous Business.)

This supplemental report from the Medico-Legal Committee will provide additional information on the subject of professional liability insurance. The previous report in the HANDBOOK for the House of Delegates summarized the fact-finding activity of the Committee over the past several months.

In this follow up to its initial report, the Committee is submitting information which has been obtained since the HANDBOOK was published. In doing so, the Committee wishes to re-emphasize several points stressed earlier: (1) this is a complex issue, (2) there are no easy answers, (3) accurate and comprehensive data is difficult to obtain, (4) the coverage picture is improved in terms of availability, but not from the cost standpoint, and (5) state sponsored programs seem to be increasing in number. In regard to point number 4, sharp premium increases are reported to be in the offing.

The Medico-Legal Committee met for the full day on March 29, 1972. At this session the Committee conferred separately with representatives of four different insurance companies which provide professional liability coverage. Three of the four companies submitted proposals to link the Society contractually with a particular underwriter in a sponsored professional liability insurance program.

In contrast, the fourth company is interested and anxious to continue its practice of operating independent of any formal tie with a medical society or association. This company wishes to maintain liaison with the society and desires to be supportive in any professional educational activity, but does not wish to be connected in any sponsored or contractual manner.

The Committee acknowledges there are companies other than these four active in the malpractice field. This group was invited to meet with the Committee for one or more of several reasons, e.g., their present activity in Iowa, their national involvement in this field, their new entry into the market, etc. The Committee submits the following brief comments on the presentations and proposals of each of the several companies:

AETNA LIFE & CASUALTY

Aetna is requesting Society consideration of a *statewide sponsored program* which they maintain will (1) provide complete professional insurance protection to IMS members, (2) include an effective loss control program stressing education and claim review, (3) assure a stable insurance market, and (4) minimize members' insurance costs.

Coverage under the program would be available to Society members who meet reasonable underwriting standards through local Aetna agents. A Central Administration Committee composed of IMS physicians would hear appeals when coverage is refused. This Central Administration Committee would be an important element in the total program and would serve as a peer review mechanism.

The Aetna program is described as a "packaged" approach which includes four coverages (one which is optional): (1) Primary Professional Liability, (2) Primary Office Premises Liability, (3) Catastrophe Insurance (umbrella), and (4) Physicians & Surgeons Equipment Coverage. The fourth coverage is optional.

In the Primary Professional Liability area, the coverage would be $100,000-$300,000 or $250,000-$500,000, depending on the classification of the physician.

Aetna will guarantee this program for a minimum of five years. The individual policies would have a common anniversary date. Program dividends are possible depending on the level of administration of expense and loss savings. Several of the proposed coverages will be priced at manual or bureau rates. The toal basic cost for the three required program components would range from $341 in Class I to $1,928 in Class V at this time.

The Aetna proposes to appoint a company employee as program coordinator. He would be full-time in that capacity. His major functions would include coordination of company and Society efforts in claims and suits and loss control. He would serve district review committees as they evaluate and make recommendations on liability claims. He would also develop and operate an on-going education program.

A program similar to the one proposed for Iowa by Aetna was instituted in Connecticut in 1971. Other states with Aetna programs are Washington, Utah and Delaware.

THE ST. PAUL INSURANCE COMPANIES

The St. Paul is one of the oldest companies in the professional liability field with nationwide writings in excess of $26,000,000. The states of Arkansas, Georgia, Louisiana, Maryland, Minnesota, Mississippi, North Carolina, Rhode Island, South Carolina, Virginia and Nebraska, in addition to the District of Columbia, have sponsored St. Paul programs. In several of these states St. Paul claims considerable savings for the societies, savings being described as the difference between St. Paul rates and the bureau rates.

Under the professional liability insurance program which The St. Paul Fire and Marine Insurance Company proposes in Iowa, individual policies would be issued to interested Society members. The program would be available to members in good standing. Risk selection would be important and the Society would play a major part in this evaluation, but the final decision as to acceptance would rest with the St. Paul.

The St. Paul program would also be guaranteed for five years. The St. Paul would submit a complete statistical analysis to the Society annually and rates would be changed only after discussion with the Society. After the initial five years, rates would be determined on the basis of participation and loss experience.

The St. Paul proposes to write policies under this sponsored-type program through its approximately 350 local agents in the State of Iowa. The Company's state office in Des Moines would handle administrative and claims matters with support from district offices in Cedar Rapids, Sioux City and Mason City.

Defense counsel used in any claims action would have to be mutually satisfactory to the Society and The Saint Paul Companies. Expert testimony from Society members would be expected for selected Society members when it is needed. The Company advocates a vigorous defense of all nonmeritorious claims.

Primary limits for professional liability would be written up to $100,000-$300,000. The Company would provide additional limits of liability as desired by means of excess liability contracts.

The proposed program is described by St. Paul as a Combination Professional Liability Policy and contains in addition to professional liability, office premises and personal injury liability, office premises medical payments, equipment floater and defendants reimbursement.

ARGONAUT INSURANCE

This company has instituted a sponsored program with the Pennsylvania Medical Society within the past year and is offering a similar proposition to the Iowa Medical Society. The program proposes (1) to be of a long term nature, (2) to settle claims fairly and to defend claims where there is justification, (3) to obtain a sufficiently large participation to spread the risk, (4) to provide loss prevention education, (5) to retain legal counsel mutually agreeable to Argonaut and the IMS, and (6) to provide after the third program year, if appropriate, dividend participation or rate adjustment.

Holmes, Murphy and Associates, Inc., of Des Moines is named in the proposal as the program's full-time administrator. Its centralized staff would work with the Society in the enrollment and administration of the program.

The Society is called on in the proposal to form a Commission on Professional Liability Insurance to include medical specialty representation. This commission would have far-ranging and nearly total responsibility for the program. It would (1) assist in gaining support for the program from the IMS membership; (2) review all disputes on member coverage; (3) re-

view all statistical data having to do with rating classifications, premiums and losses, etc.; (4) provide medical expertise and advice, (5) make final and binding decisions on settlement disputes brought either by a member insured or by Argonaut; and (6) assist with malpractice prevention/education program.

After three years' experience the Argonaut expects to return any excess profits to the program participants; the Company desires a 5 per cent profit for its efforts and any amount beyond that will be returned as noted. According to Argonaut officials, the premiums going into the sponsored program would be equivalent to those rates which are competitive in the state at the inception of the program.

The Argonaut is providing sponsored programs in Pennsylvania, Idaho, Hawaii and Massachusetts. It is the carrier for 22 state hospital associations and has recently become associated with the Iowa Hospital Association.

THE MEDICAL PROTECTIVE COMPANY

This company writes much of the professional liability in Iowa at this time. It is not an advocate of the Society sponsored or endorsed type of professional liability coverage. It recommends rather the marketplace be strictly open and competitive and that physicians be urged to obtain that individual coverage which is best suited to their specific needs.

It is the opinion of Medical Protective that group activity is a symptom of deterioration of coverage. In some states, their company representative points out, no other coverage is available. Medical societies in some states reportedly endorse a specific program but do not promote it. Along this line, it was reported that Medical Protective co-exists with group programs in several states.

The Medical Protective Company reports it is now willing to provide coverage to any reputable Iowa doctor in any classification. They estimate to have about 60 per cent of the physician market in Iowa at this time. The Company is providing up to $200,000-$600,000 in basic liability coverage at this time.

The Medical Protective Company claims the history of society sponsored malpractice insurance has demonstrated it to be inefficient, expensive, and productive of more claims and greater losses than other areas.

* * *

The Medico-Legal Committee acknowledges the preceding summaries are superficial in nature. Much more detail is needed for a thorough understanding of individual versus group or sponsored coverage. Further information is necessary to understand the variances and the features of the different sponsored proposals. The Medico-Legal Committee questioned at length the representatives of the previously named companies and even then came away recognizing its inadequacy in understanding the complete picture.

The House of Delegates is reminded that arrangements have been made for Dr. Charles Hoffman, president-elect of the American Medical Association, to speak to the House of Delegates on Wednesday, as well as at the General Sessions on Tuesday. Dr. Hoffman is a physician member of the HEW Commission on Professional Liability and is also Chairman of the AMA committee in this area. It is hoped that representatives of the Medico-Legal Committee will have opportunity to visit with Dr. Hoffman in some detail about current professional liability trends.

The Committee has weighed, at least superficially, the pros and cons of the group concept and admits to being uncertain about the merits of this approach in Iowa. The sponsored programs which have been advanced by the several companies have appealing features; principal among is the reasonable assurance that complete and accurate experience information will be available to the Society and will be used in making future rate determinations. Peer review activity is strongly advocated by each of the group-minded companies and this is certainly consistent with the policy commitment of the Iowa Medical Society.

The advantages and disadvantages of a Society sponsored program deserve much careful evaluation. On the one hand, if a sponsored program is instituted and eventually proves unsuccessful, has the Society done more of a disservice than a service by possibly drying up the market? On the other hand, is the Society out of step with the current trend which has seen approximately half of the states institute endorsed programs?

These are the unanswered questions which the Medico-Legal Committee has asked itself and which it submits to the 1972 House of Delegates. The Committee would invite an expression from the House on these several questions and would request additional time to pursue the answers. It too would suggest that authority be given to utilize an impartial independent expert in this field (1) to evaluate the proposals before the Committee and (2) to assist in developing recommendations for subsequent presentation either to the House of Delegates or the Executive Council.

Respectfully submitted,
C. H. DENSER, JR., M.D., *Chairman*
G. H. ASHLINE, M.D.
K. K. HAZLET, M.D.
J. H. KELLEY, M.D.
W. M. KRIGSTEN, M.D.
R. P. LAGONI, M.D.
R. D. ROWLEY, M.D.
J. M. TIERNEY, M.D.
W. V. WULFEKUHLER, M.D.

Supplemental Reports of Special Committees

COMMITTEE ON BLOOD BANKING

(Referred to the Reference Committee on Legislation and Miscellaneous Business.)

At a meeting of the Blood Banking Committee on April 5, 1972, attention was called to two separate studies on the status of blood banking in the U. S. being undertaken by the federal government and by the AMA in cooperation with other interested agencies.

To reinforce the importance of physician leadership in developing and coordinating any changes that might appear to be necessary in the present system of blood banking, the committee approved the following resolution for consideration and action by the House of Delegates:

WHEREAS, The Nixon Administration has requested the Department of HEW to conduct a study of blood collection and distribution procedures, and

WHEREAS, The American Medical Association recently issued a questionnaire on blood banking to the nation's 6,000 blood banks, and

WHEREAS, The National Red Cross and the American

Association of Blood Banks recently issued position papers with respect to national blood programs; therefore be it

Resolved, That the IMS instruct its delegates to the AMA to urge the AMA to assume leadership and to actively participate in the development of any national blood program.

Respectfully submitted,
W. S. PHETEPLACE, M.D., *Chairman*
FRED DICK, JR., M.D.
K. B. GRANT, M.D.
J. H. HABERMANN, M.D.
D. O. HOLMAN, M.D.
C. A. JOHNSON, M.D.
G. T. JOYCE, M.D.
WALLACE RINDSKOPF, M.D.

RESOLUTIONS

MARION COUNTY MEDICAL SOCIETY NO. 1. MALPRACTICE SPEAKER

(Referred to the Reference Committee on Legislation and Miscellaneous Business.)

WHEREAS, Last spring the IMS engaged an attorney to speak on our malpractice problem at the annual meeting; and

WHEREAS, An attorney gives the views as to what is best for the legal profession and not what the doctors want, which, among other things, is the elimination of the contingency fee system; and

WHEREAS, We must ask what the doctors want and not what the lawyers want; therefore be it

Resolved, That we request that a prospective speaker on malpractice be a physician who will explain state legislation to eliminate the evils of the contingency fee system; and be it further

Resolved, That this physician speaker discuss additional factors for state legislation to solve our malpractice dilemma.

MARION COUNTY MEDICAL SOCIETY NO. 2. CONTINGENCY FEE LEGISLATION

(Referred to the Reference Committee on Legislation and Miscellaneous Business.)

WHEREAS, The Marion County Medical Society believes the contingency fee system promotes and multiplies unfounded malpractice actions; and

WHEREAS, The fear of malpractice actions is the cause of defensive actions by the physicians and hospitals and is also a principal factor in increased costs of medical care to the public; and

WHEREAS, The contingency fee system, in our society as a whole, fosters unfounded, vengeful civil actions to the detriment of the citizen's tangible and mental rights; therefore be it

Resolved, That the Iowa Medical Society prepare and actively support a bill to present to the Iowa Legislature, and seek the active support of other state organizations which stand to benefit, for proposed legislation which would provide: 1) That the losing party in civil litigation shall not only pay all court costs, which he already usually does, but that in addition he shall pay a reasonable fee to the winning party's attorney; 2) That the poor man shall be able to sue if he has a justifiable case (as determined in medical cases by a county committee composed of the county attorney, the president of the county bar association, the president and secretary of the county medical society and the clerk of court). (In non-medical cases the committee shall be represented by the board of supervisors, the county attorney and the clerk of court.) If either committee in its investigation finds the poor man has a justifiable case, a unit of the State will provide him an attorney and the necessary means so he can comply with the law, in the very few instances where he loses his case in court; 3) That there shall be established in connection with this proposed law a schedule of justifiable fees that the losing party has to pay to the winning party's attorney; 4) That before any plaintiff can begin civil litigation he must present to the clerk of court an affidavit, and additional proof if the clerk of court deems it necessary, showing that he has the means to pay court costs and the defendant's attorney fee, if he, the plaintiff, should lose his case in court; and be it further

Resolved, That this resolution shall be submitted to the American Medical Association at its next meeting for its approval for state legislation.

CLINTON COUNTY MEDICAL SOCIETY NO. 3. HOLD HARMLESS CLAUSE

(Referred to the Reference Committee on Insurance and Medical Service.)

WHEREAS, No one can be bound by a contract he has not approved and signed; and

WHEREAS, It would appear to be unreasonable to expect a non-contracting physician to abide by the rules of a third party carrier without the physician's approval and signature; therefore be it

Resolved, That the Hold Harmless clause be deleted from the Blue Shield policy as not applicable to the non-participating physician.

CLINTON COUNTY MEDICAL SOCIETY NO. 4. BOARD OF DIRECTOR MEMBERSHIP

(Referred to the Reference Committee on Insurance and Medical Service.)

WHEREAS, The physician representative to Iowa Blue Cross-Blue Shield, as a member of their advisory board, is in turn a representative of Blue Cross-Blue Shield to the Iowa Medical Society; and

WHEREAS, Blue Cross-Blue Shield is a third party carrier; and

WHEREAS, The function of the Iowa Medical Foundation is to represent the Iowa physician in negotiating with the third party carrier; therefore be it

Resolved, That no member of the Iowa Medical Society shall serve concomitantly on the Iowa Foundation for Medical Care board of directors, and the Blue Cross-Blue Shield board of directors, since no physician can adequately serve two masters.

CLINTON COUNTY MEDICAL SOCIETY NO. 5. BLUE SHIELD DISCRIMINATION

(Referred to the Reference Committee on Insurance and Medical Service.)

WHEREAS, In the State of Iowa all insurance carriers except Blue Cross-Blue Shield reimburse the patient the same amount for a service whether or not the patient's physician has a contract with the specific insurance carrier; and

WHEREAS, In the State of Iowa the Blue Shield Comprehensive policy does not pay an equal amount to the patient if his physician is a non-participating physician; and

WHEREAS, This form of discrimination is detrimental to the welfare of the average citizen who is either not informed or does not comprehend he has purchased a discriminatory policy, and that this citizen could obtain better coverage for an equal amount from other insurance carriers; therefore be it

Resolved, That the Blue Shield Comprehensive policies, such as policy 482-50-4229—007-009, which contain discriminatory clauses regarding fee schedules for policyholders engaging non-participating physicians, be altered or canceled, so that payments to the patients will be the same regardless of whether patients elect to engage a participating or a non-participating physician.

CLINTON COUNTY MEDICAL SOCIETY
NO. 6. RESTRICT BOARD MEMBERSHIP OVERLAP

(Referred to the Reference Committee on Insurance and Medical Service.)

WHEREAS, The function of the Iowa Medical Society is the promotion of good medical care in the State of Iowa; and

WHEREAS, The function of the Iowa Foundation for Medical Care is basically to act as a bargaining agent for the doctors of Iowa with third party carriers; and

WHEREAS, There appears to be a conflict of interests of the two organizations in that the one is limited to the advancement of medical practice and the other is limited to the financial advancement of the physician; therefore be it

Resolved, That the members of the Executive Council of the Iowa Medical Society shall not also serve as members of the Board of Directors of the Iowa Foundation for Medical Care.

CLINTON COUNTY MEDICAL SOCIETY
NO. 7. BLUE SHIELD ASSIGNMENTS

(Referred to the Reference Committee on Insurance and Medical Service.)

WHEREAS, All insurance carriers in the State of Iowa with the exception of Blue Cross-Blue Shield will honor an assignment by the patient; therefore be it

Resolved, That Blue Shield be required to honor their policyholders assignments to any physician whom the policyholder designates.

LEE COUNTY MEDICAL SOCIETY
NO. 8. WELFARE AND MEDICAID LIMITATIONS

(Referred to the Reference Committee on Insurance and Medical Service.)

WHEREAS, A number of the County Welfare, Social and Medicaid agencies have notified physicians in their jurisdictions that payment for only one visit per month for patient recipients of these services will be made, and that payment will be made for prescriptions for generic drugs only; and

WHEREAS, Section 6 of the Principles of Medical Ethics of the American Medical Association states, "A physician should not dispose of his services under terms or conditions which tend to interfere with or impair the free and complete exercise of his medical judgement and skill or tend to cause a deterioration of the quality of medical care"; therefore be it

Resolved, That the Iowa Medical Society House of Delegates oppose the regulations restricting prescriptions to generic drugs, and the limiting of payment for physicians' visits to one per month for Welfare and Medicaid patients.

JAMES W. WHITE, M.D., DELEGATE
DUBUQUE COUNTY MEDICAL SOCIETY
NO. 9. SPECIALTY REPRESENTATION

(Referred to the Reference Committee on Reports of Officers.)

WHEREAS, The membership in the Iowa Medical Society has been declining and physician interest has been diverted to specialty societies this should be recognized; and

WHEREAS, The IMS could increase physician interest with closer ties to the state's specialty societies; and

WHEREAS, There is a need for the IMS to represent all Iowa physicians and groups of physicians with varying ideas; therefore be it

Resolved, That the Iowa Medical Society extend an invitation to the specialty societies to send representatives to the IMS meeting with delegate status.

BLACK HAWK COUNTY MEDICAL SOCIETY
NO. 10. AGREEMENTS OR CONTRACTS FOR PEER REVIEW

(Referred to the Reference Committee on Insurance and Medical Service.)

WHEREAS, The constitution and By-Laws of the Iowa Medical Society forbid the state or county societies the power to contract the services of its members; and

WHEREAS, The Black Hawk County Medical Society, like all county medical societies in Iowa, has adhered to the Principles of Medical Ethics using forceful system of internal discipline; and

WHEREAS, The present system of Peer Review instituted by the Iowa Medical Society individual county medical societies and local hospital staffs, provides adequate supervision of the practice of medicine and maintains high ethical standards of the profession; therefore be it

Resolved, That officers of the Iowa Medical Society and officers of the component county societies of the State of Iowa, not be allowed to enter any agreement or contract with the secretary of HEW or any other governmental agency of the county, state or federal government, or any political subdivision or third party, for the purpose of Peer Review or any similar mechanisms; and further be it

Resolved, That Iowa Medical Society reject similar proposals, embodied in the Bennett Amendment, namely program or services review board in Social Security and/or Medicredit Bill that would be third party controlled.

BLACK HAWK COUNTY MEDICAL SOCIETY
NO. 11. RELEASE OF MEDICAL INFORMATION TO INSURANCE COMPANIES, SERVICE CONTRACT CORPORATIONS, GOVERNMENT CARRIERS, AND GOVERNMENT AGENCIES FROM MEDICAL RECORDS DEPARTMENTS OF HOSPITALS

(Referred to the Reference Committee on Insurance and Medical Service.)

Resolved, That all inquiries for medical information will be accompanied by a properly executed and current authorization for release of information signed by the patient or his proper representative. Upon receipt of an inquiry, the Medical Record Department will submit information in the face sheet of the chart, which includes identification data, the admitting and final diagnosis, and the name of the operations performed, including the *verified* pathological diagnosis, if any. If an insurance company requires additional information, the insurance representative will be referred to the attending physician. Requests for the

"entire medical record" or "photostatic copies of the history, physical, and progress notes" are considered unethical and unacceptable; and be it further

Resolved, That it is recognized that an insurer may request under the "contestability clause" specified by the law in most states, specific antecedent information during the period of contestability. This request to the physician shall identify the specific information requested from the history of the present illness. On requests for past history, a list of such antecedent information as may be related and pertinent to the insurance policy in question will be provided by the insurer. The physician may then review the medical record(s) and can then provide the pertinent information. Operative report and pathology tissue report copies should not be necessary since the surgery is clearly listed in the front sheet and is self-explanatory as to the procedure involved and the verified pathological diagnosis, if any. Reports of x-rays, EKG or other laboratory aids used by the physician in establishing the clinical diagnosis should not be necessary; and be it further

Resolved, That for the purposes of financial audits and government provider audit programs, "the provider need only show the auditor that part of the records relating to the physician's authorization for services and not the notes made by nurses and physicians or diagnostic data which are confidential information"; and be it further

Resolved, That the physician may honor requests for unusual information of a technical nature which the patient himself may not be able to provide and not covered in 2 above; and be it further

Resolved, That certifications and recertifications are to be filed separately from the body of the medical record and shall be made available to the carrier or government agency. These should not be entered on the progress notes; and be it further

Resolved, That implementation of this Resolution shall be the responsibility of the Medical Records Committee of the medical staff.

MAHASKA COUNTY MEDICAL SOCIETY
NO. 12. IOWA MEDICAL SOCIETY-BLUE SHIELD REPRESENTATIVES

(Referred to the Reference Committee on Reports of Officers.)

WHEREAS, The positions of Blue Shield, as an insurance carrier and as the carrier for Medicare in Iowa, and the individual member of the Iowa Medical Society are presently divergent and promise to become increasingly divergent in the future and

WHEREAS, The best interests of neither party can be adequately served by a single representative; be it

Resolved, That the employees of the Iowa Medical Society and Blue Shield be henceforth individual and separate.

CALHOUN COUNTY MEDICAL SOCIETY
NO. 13. CIGARETTE SMOKING

(Referred to the Reference Committee on Legislation and Miscellaneous Business.)

WHEREAS, There now exists ample evidence that cigarette smoking is a health hazard, be it

Resolved, That the Iowa Medical Society encourage its members to participate actively in efforts to reduce the use of cigarettes among their patients and the general public.

SCOTT COUNTY MEDICAL SOCIETY
NO. 14. PAYMENT FOR SURGERY AND SURGICAL ASSISTANTS UNDER MEDICARE

(Referred to the Reference Committee on Insurance and Medical Service.)

WHEREAS, The 1971 session of the House of Delegates of the Iowa Medical Society adopted a report of the Subcommittee on Medical Review concerning payment for surgery and surgical assistants under Medicare and,

WHEREAS, A fee for this concept embraces the notion that payment should be based on illness and not on service and

WHEREAS, It is not the business of the Iowa Medical Society to ratify and urge upon its members "directions" of the Social Security Administration; therefore be it

Resolved, That the House of Delegates of the Iowa Medical Society rescind its action of 1971 regarding component itemization of surgical fees; and be it further

Resolved, That remedies specifically dealing with assistants' fees be sought so that unethical fee splitting (compensation for referrals for reasons other than professional competence and skill) will be eliminated or minimized; and be it further

Resolved, That reasonable schedules for surgical services be developed and placed under surveillance of professional committees who will promptly and forthrightly condemn unreasonable exploitation of the patient, the insurance carrier, or the health care plans of the federal government.

POLK COUNTY MEDICAL SOCIETY
NO. 15. REAPPORTIONMENT

(Referred to the Reference Committee on Reports of Officers.)

WHEREAS, The representation within the House of Delegates of the Iowa Medical Society continues to be on a county basis with unequal representation and,

WHEREAS, Previous attempts to change the By-Laws of the Iowa Medical Society to establish a one-to-one representation on a statewide basis has not been approved; therefore be it

Resolved, That the Iowa Medical Society amend its By-Laws to provide that delegates be selected on a basis of Councilor Districts with one delegate from each district and an additional delegate from each district for each 25 members (or major fraction) more than an original 25.

POLK COUNTY MEDICAL SOCIETY
NO. 16. PAYMENT FOR SURGERY AND SURGICAL ASSISTANTS

(Referred to the Reference Committee on Insurance and Medical Service.)

WHEREAS, The Iowa Medical Society, by previous action of the House of Delegates, supports the fragmentation and division of surgical fees into five (5) component parts, i.e., initial examination, pre-operative preparation, "Cutting experience," assistant's fee and post-operative care and

WHEREAS, Contrariwise, the Iowa Medical Society traditionally maintains a strong position for fee-for-service for all physicians and

WHEREAS, "Assistant fees" are not and have never been an ethical part of a surgeon's fee; therefore be it

Resolved, That the Iowa Medical Society support

the fee-for-service concept for the surgical fee and allow no division of fees in order to allow payment to any other person and further that when other medical fees and/or assistants' fees are justified, they will be paid by Blue Shield as separate and distinct payments for separate services.

MARION COUNTY MEDICAL SOCIETY
NO. 17. LIMITED TENURE FOR AMA DELEGATES

(Referred to the Reference Committee on Legislation and Miscellaneous Business.)

WHEREAS, The Marion County Medical Society believes that unlimited tenure of the AMA delegates is inconsistent with a strong, active, democratic, nonprofit organization; and

WHEREAS, This retards innovation in the policies of the AMA; and

WHEREAS, Unlimited tenure encourages the formation of an autocratic superstructure insulated from and unresponsive to the body of practicing physicians; therefore be it

Resolved, That the tenure of office of the AMA delegates of any state shall be limited to six years and then will be ineligible to serve for a four year period; and be it further

Resolved, That the AMA delegates be instructed to present this resolution at this year's meeting of the AMA House of Delegates for its approval.

LIFE AND ASSOCIATE MEMBERSHIPS

LIFE MEMBERSHIP RECOMMENDED ON THE BASIS OF 50 YEARS' PRACTICE AND 30 YEARS' MEMBERSHIP

County	Name
Audubon	LeRoy E. Jensen, Audubon
Black Hawk	Frank H. Reuling, Waterloo
Des Moines-Louisa	John C. McKitterick, Burlington
Lee	Frank R. Richmond, Sr., Fort Madison
Muscatine	Clarence P. Phillips, Clear Lake
Woodbury	Robert N. Larimer, Sioux City
	Raymond J. Harrington, Sioux City

ASSOCIATE MEMBERSHIPS RECOMMENDED ON THE BASIS OF RETIREMENT OR INCAPACITATION

County	Name
Black Hawk	Howard J. Hartman, Lake San Marcos, California
Bremer	Robert E. Shaw, Waverly
Cerro Gordo	Madelene M. Donnelly, Clear Lake
Clinton	Leander H. Schafer, De Witt
Fayette	A. Erwin Berry, Oelwein
Hardin	Robert J. Johnson, Iowa Falls
Linn	Morgan J. Foster, Cedar Rapids
	Donald J. McDonald, Cedar Rapids
	Clyde B. Meffert, Cedar Rapids
Mitchell	Theodore E. Blong, Light House Point, Florida
Muscatine	John L. Klein, Muscatine
Polk	Rogelio M. Bonau, Des Moines
	John A. Caffrey, Des Moines
Pottawattamie-Mills	Robert M. Collins, Council Bluffs
Story	Ronald L. McCormack, Ames
Winneshiek	Edward F. Hagen, Decorah

The physicians nominated for each of these membership categories were approved unanimously.

The Speaker announced the meeting places for the various reference committees and said they would convene at 2:00 p.m. Delegates were informed the House of Delegates would convene Wednesday, April 26, at 9:00 a.m. in the State Ballroom of the Fort Des Moines Hotel. The House adjourned at 12:35 p.m.



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WEDNESDAY SESSION, APRIL 26, 1972

The Wednesday session of the House of Delegates was called to order at 9:10 a.m. The House approved the taking of attendance by registration cards. There were 102 delegates, 12 voting alternates and 18 ex officio members present.

COUNTY	DELEGATE
Adams	C. L. Bain
	(Alternate)
Allamakee	R. H. Palmer
Appanoose	E. A. Larsen
Audubon	L. E. Jensen
Black Hawk	C. D. Ellyson
	D. E. Conklin
	Fred Dick, Jr.
	G. R. Clark
	R. S. Gerard, III
Boone	E. E. Linder
Bremer	V. H. Carstensen
Buchanan	L. J. Flage
Calhoun	R. P. Ferguson
Carroll	J. E. McGill
Cass	K. R. Swanson
Cedar	G. H. Utley
Cerro Gordo	W. V. Wulfekuhler
	G. H. West, Jr.
	(Alternate)
	R. M. Powell
	(Alternate)
Cherokee	R. D. Berge
Clarke	J. D. Kimball
Clinton	J. L. Monahan
Crawford	D. J. Soll
Dallas-Guthrie	E. E. Lister
	W. A. Seidler, Jr.
Davis	Richard Schoonover
Decatur-Ringgold	E. E. Gamet
Delaware	J. E. Tyrrell
Des Moines-Louisa	J. F. Foss
Dickinson	D. F. Rodawig, Jr.
Dubuque	J. A. Pearson
	J. W. White
Emmet	R. J. Dawson
Fayette	D. J. Ottilie
Franklin	R. E. Munns
Fremont	T. H. Largen
Grundy	D. R. Kruschwitz
Hamilton	G. A. Paschal
Hancock-Winnebago	L. R. Fuller
	J. T. Mangan
Hardin	H. O. Stoutland
	(Alternate)
Harrison	J. W. Barnes
Ida	J. B. Dressler
Iowa	D. F. Miller
Jackson	J. A. Broman
Jasper	T. E. Kiernan
Jefferson	G. E. Egli
Johnson	T. T. Bozek
	K. J. Judiesch
	A. S. Norris
	C. E. Radcliffe
	C. E. Hartford
	(Alternate)
	R. D. Whinery
	(Alternate)
	C. A. Skaugstad
	(Alternate)
Jones	E. H. DeShaw
Kossuth	D. F. Koob
	(Alternate)
Lee	G. C. McGinnis
	W. B. Kasiske
Linn	C. R. Aschoff
	R. M. Chapman
	R. W. Conkling
	D. D. Morgan
	R. A. Sautter
Mahaska	S. A. Smith
Marion	Peter Van Zante
Marshall	W. T. Shultz
	L. O. Goodman
Monona	J. L. Garred
Montgomery	Oscar Alden
Muscatine	K. E. Wilcox
O'Brien	R. L. Zoutendam
	(Alternate)
Page	K. J. Gee
	(Alternate)
Pocahontas	J. B. Thielen
Polk	W. R. Hornaday, Jr.
	R. E. Hines
	A. N. Smith
	J. L. Fatland
	John Hess, Jr.
	J. W. Green, Jr.
	H. E. Wichern
	J. G. Thomsen
	J. I. Hostetter
	N. W. Irving, Jr.
	J. E. Kelsey
	R. K. Bunten
	D. C. Young
	(Alternate)
	A. L. Sciortina
Pottawattamie-Mills	M. E. Olsen
	Hormoz Rassekh
	R. K. Fryzek
Poweshiek	H. R. Light
Scott	J. F. Collins
	D. A. Bovenmyer
	A. W. Boone
	J. C. Donahue, Jr.
	(Alternate)
Shelby	J. H. Spearing
Sioux	L. K. Yates
Story	W. R. Bliss
	M. A. Johnson
Tama	A. J. Havlik
Union-Taylor	R. H. Kuhl
Wapello	R. P. Meyers
	L. E. Coppoc
Wayne	K. A. Garber
Webster	J. F. Kelly
Winneshiek	C. E. Larson
Woodbury	C. L. Beye
	P. J. Monnig
	P. M. Cmeyla
	R. C. Larimer
Worth	B. H. Osten
Wright	C. P. Hawkins

LIAISON DELEGATES

S. P. Leinbach C. W. Seibert

EX-OFFICIO MEMBERS OF THE HOUSE

L. J. O'Brien	J. F. Paulson	H. J. Smith
K. E. Lister	J. F. Bishop	E. M. Smith
R. H. Flocks	J. M. Rhodes, Sr.	J. H. Sunderbruch
V. L. Schlaser	A. M. Dolan	H. L. Skinner
T. A. Burcham	L. D. Caraway	W. M. Krigsten
R. L. Wicks	L. W. Swanson	R. F. Birge

Dr. Schlaser read the minutes of the April 23 meeting of the House of Delegates and the House approved them.

Frank Jirka, M.D., President of the Illinois State Medical Society; Peter Petrich, M.D., President of the Indiana State Medical Association, Robert Kelly, M.D., President of the Minnesota State Medical Association; Roger Mason, M.D., President of the Nebraska Medical Association; Robert Purtell, President-Elect, M.D., State Medical Society of Wisconsin; Mr. Earl Thayer, Secretary of the State Medical Society of Wisconsin; and Mr. Neil Sutherland, AMA Field Service Representative, were introduced by Dr. Caraway and recognized by the House.

The election of officers followed and the following physicians were chosen:

President-elect	R. H. Flocks, M.D., Iowa City
Vice-president	Erling Larson, Jr., M.D., Davenport
Trustee	J. F. Paulson, M.D., Mason City
Secretary	V. L. Schlaser, M.D., Des Moines
Treasurer	T. A. Burcham, M.D., Des Moines
Speaker of the House	L. D. Caraway, M.D., Amana
Vice Speaker of the House	H. L. Skinner, M.D., Carroll
Delegates to AMA	L. W. Swanson, M.D., Mason City
	Herman J. Smith, M.D., Des Moines
Councilor, District 3	J. M. Rhodes, M.D., Pocahontas
Councilor, District 4	P. J. Monnig, M. D., Sioux City
Councilor, District 5	H. E. Wichern, M. D., Des Moines
Councilor, District 6	A. M. Dolan, M.D., Waterloo
Councilor, District 10	E. E. Gamet, M.D., Lamoni
Blue Shield Liaison Delegates to IMS	S. P. Leinbach, M.D., Belmond
	C. W. Seibert, M.D., Waterloo

Society President L. J. O'Brien, M.D., introduced Carl Hoffman, M.D., President-Elect of the American Medical Association, who addressed the House.

(Dr. Hoffman's remarks are published on page 331 of this issue of the JOURNAL.)

Dr. Caraway commended the members of the Reference Committees, informed delegates of the proper procedure for debate and voting.

REFERENCE COMMITTEE REPORTS

The following Reference Committee reports were acted upon by the House of Delegates.

ARTICLES OF INCORPORATION & BY-LAWS

The Reference Committee on Articles of Incorporation and By-Laws met in open session at 2:00 p.m. on Sunday, April 23, 1972. Opportunity was given for those present at the hearing to offer their views on the matters before the Committee. The discussion continued for approximately one hour. Following are recommendations on the three matters which were referred to the Reference Committee.

(1) LIFE MEMBERSHIP IN IOWA MEDICAL SOCIETY

The Reference Committee first considered the proposed amendment to the Articles of Incorporation concerned with "Life Membership" in the Iowa Medical Society. This proposal clarifies the provision for "Life Membership" in that it requires a physician desiring this status to either (1) be a member in good standing of the Iowa Medical Society or (2) have his current dues waived by the Judicial Council because of financial hardship.

RECOMMENDATION: Mr. Speaker, the Reference Committee recommends adoption of the following resolution:

Resolved, That Article III, Section 3 of the Articles of Incorporation of the Iowa Medical Society, as amended, be and hereby is further amended by revising the first sentence thereof to read as follows:

"Any physician who has practiced medicine for 50 years and has been a member of this Society for 30 years may be elected to Life Membership by the House of Delegates, providing his county medical society votes to present his name for such Life Membership in the Society and providing further that his regular and special dues for the current year have either been accepted at the headquarters of the Society or have been waived by the Judicial Council because of financial hardship."

Mr. Speaker, I move the adoption of this resolution.

(2) MINIMUM ATTENDANCE REQUIREMENTS BY JUDICIAL COUNCIL

The Reference Committee next considered a suggestion from the Judicial Council that a provision be added to the Iowa Medical Society By-Laws setting forth minimum attendance requirements for those elected to serve as District Councilors. While no member of the Judicial Council was present to speak to this recommendation, the Reference Committee concurs with the Council that the idea has considerable merit and will serve to assure active participation in this important component of the Society and in turn on the Executive Council.

RECOMMENDATION: Mr. Speaker, the Reference Committee recommends adoption of the following resolution:

Resolved, That the matter of minimum attendance by IMS councilors be referred to the Standing Committee on Articles and By-Laws with instructions (1) to prepare appropriate language to implement this recommendation, and (2) in doing so to consider provisions whereby the represented and involved county medical societies would be notified if and when their councilor has attended less than 60 per cent of the meetings of the Judicial Council on an unexcused basis. And further, that when at the end of any one year a councilor has not attended 60 per cent of the meetings his councilor seat will be declared vacant.

Mr. Speaker, I move the adoption of this resolution.

(3) SEPARATION OF BUSINESS AND SCIENTIFIC SESSIONS

The Reference Committee discussed finally and at greatest length a recommendation to the House of Delegates that it amend the Articles of Incorporation and By-Laws to permit a separation of the business and scientific sessions of the Iowa Medical Society. Additional information on this proposal was provided by the president-elect of the Society and by one of the trustees.

The Reference Committee is of the opinion (1) the issues confronting medicine today are of the utmost importance, (2) they are abundant in number, (3) they deserve as prompt attention as possible, and (4) they are likely to retain these several characteristics for a considerable period into the future. Therefore, the provision for two meetings of the House of Delegates per year seems highly desirable. The proposal to make optional the second of the two meetings appears sound in the event matters of extreme importance are so few in number they can be held over to the next "annual" meeting without imposing problems in timing.

It appears prudent to retain the provision whereby a general referendum may be ordered on any question pending before or passed by the House of Delegates. This will permit the House to submit for the vote of the membership any measure which is deemed important enough to warrant this mechanism.

This total proposal presents extremely interesting possibilities with respect to future scientific programs. If adopted, it will enable the Society's officers to proceed in investigating and in developing cooperative scientific ventures with one or more neighboring states. It presents the opportunity to consider and arrange scientific meetings at settings outside the State of Iowa either independently or in conjunction with other states.

With the foregoing as background information, the Reference Committee is pleased to submit for consideration by the 1972 House of Delegates the amending language which has been developed under the guidance of the Standing Committee on Articles of Incorporation and By-Laws. In submitting the following recommendation the Reference Committee is certain, should it be approved, the Board of Trustees will use its best talents in arranging a convenient and efficient schedule for conducting meetings of the House of Delegates and in devising scientific programs which will appeal to and serve the largest possible number of Iowa physicians.

RECOMMENDATION: Mr. Speaker, the Reference Committee recommends adoption of the following resolution:

Resolved, That the Articles of Incorporation of the Iowa Medical Society, as amended, be further amended in each of the following respects:

1. Amend Article I by adding the following sentence at the end thereof:

"Scientific meetings of the Society shall be held at such time and place in or outside of the State of Iowa, either alone or in conjunction with others and in such

manner as its By-Laws provide or as its Board of Trustees may designate."

2. Amend Article IV, Section 8 by deleting the word "general" from the second sentence thereof and substituting the word "annual."

3. Amend Article IV, Section 10 by:

(a) Deleting the first sentence and substituting therefor the following:

"The Secretary, acting with the Committee on Scientific Work, shall prepare and issue the program for and attend all annual, regular and special meetings of the Society and of the House of Delegates; he shall keep minutes of their respective proceedings in separate record books; he shall place in safekeeping all papers belonging to the Society except such as properly belong to the Treasurer."

(b) Deleting the fifth sentence thereof and substituting the following therefor:

"He shall provide for the registration of members and delegates at all annual, regular and special meetings as well as at all scientific meetings."

4. Amend Article V, Section 1 by deletion and substitution therefor of the following:

"Section 1. The Society shall hold an annual meeting in the Spring and may hold a regular meeting in the Fall during each of which there shall be held not less than one general meeting which shall be open to all registered members and guests."

5. Amend Article V, Section 2 by adding the following sentence at the end thereof:

"The Board of Trustees, in consultation with the President, shall determine whether a regular meeting shall be held in any year and, if so, shall determine the time and place of such regular meeting. The Board of Trustees, in consultation with the President, shall determine the program for all general meetings of the Society."

6. Amend Article V, Section 3 by deleting the words "session of the" from the third sentence thereof.

7. Amend Article V, Section 5 by inserting the words "the annual and" after the words "apply to" and before the words "regular meetings" in the second sentence thereof.

8. Amend Article V, Section 6 by deletion thereof and substitution of the following:

"Section 6. Notices of the annual and regular meetings of the Society and the House of Delegates shall be given to all members in writing at least ten days prior to the date of such meeting, which notice may be given in the JOURNAL OF THE IOWA MEDICAL SOCIETY; the notices of special meetings shall be given to the members in writing at least five days before the date of said meeting, all to be done by regular mail addressed to the members' last known addresses as shown by the files and records in the offices of the Society."

9. Amend Article VI, Section 2 by inserting "and regular" after the word "annual" and before the word "meetings."

10. Amend Article VI, Section 4 by inserting ", regular" after the word "annual" and before the words "or special."

11. Amend Article VI, Section 8 by total deletion and substitution therefor of the following:

"Section 8. The House of Delegates shall meet at the time and place of the annual and regular meetings of the Society and shall have power to carry out the purposes and objects of this Society."

12. Amend Article X by substituting ", regular" after the word "annual" and before the words "or special."

13. Amend Article XII by deleting the first sentence thereof and substituting the following:

"These Articles of Incorporation may be amended at any annual or regular meeting of the corporation or Society, or at any special meeting called for that purpose, said amendments having been first submitted and referred to a committee for study and report, by a two-thirds vote of the House of Delegates present and voting at such meeting, but if amended at a special meeting, notice of the time and place of such meeting, together with a copy of the proposed amendment, shall be sent to each member as shown by the books of the said corporation or Society, at least 30 days prior to the meeting at which such proposed amendment is to be acted upon."

Mr. Speaker, I move the adoption of this resolution.

RECOMMENDATION: Mr. Speaker, in concert with the preceding recommendation, the Reference Committee offers the following resolution which relates to the By-Laws of the Iowa Medical Society:

Resolved, That the By-Laws of the Iowa Medical Society as amended be further amended in each of the following respects:

1. Amend Chapter 1, Section 2 by inserting ", regular" after the word "annual" and before the words "or special" in the first sentence thereof.

2. Amend Chapter I, Section 4 by inserting ", regular" after the word "annual" and before the words "or special" in the first sentence thereof.

3. Amend Chapter II, Section 1 by inserting in the last sentence thereof, the phrase "or a meeting of the House of Delegates held at the annual meeting" after the words "general meeting" and before the words ", at such time."

4. Amend Chapter III, Section 1 by deletion and substitution therefor of the following:

"Section 1. The House of Delegates shall meet at the time and place of the annual and regular meetings of the Society. It shall fix its hours for meeting so as not to conflict with the first general meeting of the Society, or with any meeting held for the address of the President, President-Elect or annual orations. If the business interests of the Society and the profession require, the House may meet in advance of the general meeting or remain in session after final adjournment of the general meeting of the Society. It may be called into session by the President at any time, or upon written petition of 20 delegates, not more than four of whom are from any one county."

5. Amend Chapter III, Section 4 by inserting ", regular" after the word "annual" and before the words "or special" in the last sentence thereof.

6. Amend Chapter III, Section 6 by deleting the last two sentences and substituting therefor the following sentence:

"In each odd-numbered year, it shall elect one (change to three; see italicized paragraph on page 387) alternate delegates to the House of Delegates of the American Medical Association."

7. Amend Chapter III, Section 11 by deleting that section in its entirety.

8. Amend Chapter V, Section 5 by deleting the words "Annual Meetings" and substituting therefor the words "meetings of the House of Delegates."

9. Amend Chapter V, Section 6 by deleting the present section and substituting therefor the following section:

"Section 6. The Committee on Scientific Work shall consist of four members, the President, Secretary, Treasurer, and President-Elect, of which committee the President shall be the chairman, and shall determine the character and scope of the proceedings of the Society for each scientific meeting, subject to the instructions of the House of Delegates, or of the Society, or to the provisions of the Articles of Incorporation and By-Laws. Thirty days previous to each scientific meeting it shall prepare and issue a program announcing the order in which papers, discussions and other matters shall be presented."

10. Amend Chapter V, Section 7 by inserting the words "or regular" after the word "annual" and before the word "meeting" in the last sentence thereof.

11. Amend Chapter VI, Section 5 by deleting the first seven words thereof and inserting therefor the following words:

"During the intervals between the annual and regular meetings."

12. Amend Chapter X, Section 1 by deleting the third sentence thereof and substituting the following:

"It shall publish as fully as the Board of Trustees deems wise and practicable, the business proceedings of the annual, regular and special meetings, the scientific proceedings of the scientific meetings, and proceedings of all official bodies of the Society."

13. Amend Chapter XII, by inserting ", Regular" after the word "Annual" and before the words "or Special."

At this point, the Resolved under Item No. 6 of the By-Laws portion was amended on a motion by Dr. C. P. Hawkins to provide for three alternate delegates to the House of Delegates of the American Medical Association in lieu of the existing provision for one alternate delegate.

Mr. Speaker, I move the adoption of this resolution, as amended.

Respectfully submitted,
R. S. GERARD, M.D., *Chairman*
K. J. JUDIESCH, M.D.
M. E. OLSEN, M.D.
J. C. PETERSON, M.D.
K. R. SWANSON, M.D.

REPORTS OF OFFICERS

An open hearing of the Reference Committee on Reports of Officers was held at 2 p.m. on Sunday, April 23, 1972, to consider and make recommendations on three Resolutions, the Supplemental Report of the Board of Trustees, and Section II of the Board's Supplemental Report dealing with "Finances and IMS JOURNAL."

RESOLUTION NO. 9—INTRODUCED BY J. W. WHITE, M.D., DELEGATE, DUBUQUE COUNTY MEDICAL SOCIETY SPECIALTY REPRESENTATION
RESOLUTION NO. 15—INTRODUCED BY THE POLK COUNTY MEDICAL SOCIETY REAPPORTIONMENT
LINES 15 THROUGH 32, PAGE 2, SUPPLEMENTAL REPORT OF BOARD OF TRUSTEES

These items were considered together because they were all concerned with the same general subject.

In its report to the House (Lines 15-32) the Board of Trustees advised of the conference arranged by the IMS with presidents of the state specialty organizations to discuss current programs and philosophies of the Iowa Medical Society.

RECOMMENDATION: The Reference Committee recommends that the following Resolution be adopted:

Resolved, That the officers of the Society be commended for scheduling a joint meeting with specialty group officials, and that the Board of Trustees continue to maintain similar communications and liaison with these organizations.

Mr. Speaker, I move the adoption of this Resolution.

Like the Board of Trustees and, as noted in its report, the Judicial Council, the Reference Committee was in agreement that matters relating to membership representation, communications, and specialty group liaison be given continuing attention.

RECOMMENDATION: The Reference Committee recommends that the following Resolution be adopted:

Resolved, That a special ad hoc committee be appointed by the President, in consultation with the Board of Trustees, to study and make recommendations regarding the structure of and representation in the House of Delegates, including consideration of establishing formal liaison with specialty groups, and representation of specialty groups in the House of Delegates, as well as the structure and function of the IMS Nominating Committee.

Mr. Speaker, I move the adoption of this Resolution.

RECOMMENDATION: The Reference Committee recommends that the following Resolution be adopted:

Resolved, That Resolution 9 and Resolution 15 be referred to the above mentioned ad hoc committee as it carries out its assignment.

Mr. Speaker, I move the adoption of this Resolution.

RESOLUTION NO. 12—INTRODUCED BY THE MAHASKA COUNTY MEDICAL SOCIETY IMS-BLUE SHIELD REPRESENTATIVES

Both the pros and cons of maintaining a joint IMS-Blue Shield professional relations staff were discussed before the Reference Committee, and the reasons for the existing field service were well-defined. Based on the information provided, the Reference Committee members were in agreement that the interests of both the IMS and Blue Shield are best served by a joint field force.

Mr. Speaker, I move Resolution No. 12 be disapproved.

SUPPLEMENTAL REPORT OF THE BOARD OF TRUSTEES

The Reference Committee was pleased to note the portion of the Board of Trustees Supplemental Report commenting on the excellent relationship that exists between the IMS and The University of Iowa College of Medicine.

RECOMMENDATION: The Reference Committee recommends that the following Resolution be adopted:

Resolved, That representatives and officials of the IMS and the College of Medicine who are responsible for establishing the close link between these two institutions be complimented for their efforts, and that they endeavor to continually strive to strengthen and enhance the excellent cooperation and rapport that exists between the Society and the College.

Mr. Speaker, I move the adoption of this Resolution.

The Reference Committee compliments the Board for taking an active interest in the development of the role of the physicians' assistant in the field of medical care, and underscores the Board's statement that it is essential and vital that the physician retain the ultimate responsibility for diagnosing and treating the ills

of his patients. The summary of the legal opinion prepared on this subject, which was included in the delegates' packets, should be of particular interest to all physicians.

RECOMMENDATION: The Reference Committee recommends that the following amended *(edited)* Resolution be adopted:

Resolved, That the Board of Trustees and other appropriate Society representatives continue to keep well informed, and to keep the membership apprised, on the development of PA training programs, the use of PA's, legal considerations.

Upon reading the report, Dr. Havlik deleted "etc." at the end of the Resolved. The Chair ruled the Resolved had been edited not amended and the House could vote upon the Resolved, as edited.

Mr. Speaker, I move the adoption of this Resolution, as edited.

Although the Reference Committee has no recommendation with respect to the Iowa Foundation for Medical Care, it does wish to acknowledge the progress report presented by the Board of Trustees on the function and operation of the Foundation, and it is assumed that such reports will continue to be provided to the membership in the future.

The Reference Committee is aware that the House will act upon the Report of the Reference Committee on Articles of Incorporation and By-Laws regarding specific amendments to permit a separation of the business and scientific sessions of the Iowa Medical Society; however, it does wish to acknowledge the time and effort put forth by the Board of Trustees in developing its recommendations on this subject.

The Supplemental Report of the Board of Trustees contained information on many important concerns of the medical profession, and the Reference Committee is well aware of the time and effort that must be put forth by the officers and staff in dealing with them.

RECOMMENDATION: The Reference Committee recommends that the following Resolution be adopted:

Resolved, That the members of the Board of Trustees and the Society's chief executive officer, Mr. Donald L. Taylor, be officially commended for their diligence, effectiveness and leadership in dealing with the many problems and issues confronting the Iowa Medical Society.

Mr. Speaker, I move the adoption of this Resolution.

SUPPLEMENTAL REPORT OF THE BOARD OF TRUSTEES SECTION II—FINANCES AND JOURNAL

The Reference Committee noted with pleasure the improved financial status of the IMS JOURNAL, as well as the introduction of a new and more attractive general design format and several new regular features.

RECOMMENDATION: The Reference Committee recommends that the following Resolution be adopted:

Resolved, That M. E. Alberts, M.D., Scientific Editor, and Don Neumann, Managing Editor, be highly complimented for initiating and effecting many innovative improvements in the IMS JOURNAL.

Mr. Speaker, I move the adoption of this Resolution.

In considering general items relating to IMS financing, the Reference Committee concurred with the concern of the Board of Trustees that deficit financing must not continue. It also is evident to the committee that every effort should be made not only by members of the Board, but by the Councilors, as well, to encourage and to solicit membership in the IMS of eligible non-members so that they will not only receive benefits from but contribute to and participate in their state professional association.

In reference to membership dues, the Reference Committee expressed concern that the House is being asked to act on a dues assessment for 1973 without the benefit of receiving a proposed budget, as stipulated in Section 14, Article IV, of the Articles of Incorporation.

RECOMMENDATION: The Reference Committee recommends that the following Resolution be adopted:

Resolved, That the membership dues for 1973 remain at $150 per year.

Mr. Speaker, I move the adoption of this Resolution.

This concludes the report of the Reference Committee on Reports of Officers.

Respectfully submitted,
A. J. HAVLIK, M.D., *Chairman*
JACK MOYERS, M.D.
C. R. ASCHOFF, M.D.
A. L. SCIORTINO, M.D.
J. E. MCGILL, M.D.

LEGISLATION AND MISCELLANEOUS BUSINESS

The Reference Committee on Legislation and Miscellaneous Business met at 2:00 o'clock on Sunday, April 23, 1972 to consider reports and resolutions assigned to the committee. Following completion of the hearings, the committee met in executive session to consider the issues.

SUPPLEMENTAL REPORT ON THE MEDICO-LEGAL COMMITTEE

Your Reference Committee commends C. H. Denser, M.D., and his committee for their efforts in studying the availability and cost of professional liability insurance in Iowa.

RECOMMENDATION: Your Reference Committee recommends adoption of the following resolution:

Resolved, That the Medico-Legal Committee continue to study the problems of professional liability insurance in Iowa and that it obtain the aid of professional consultants as needed, with the guidance of the Board of Trustees.

Mr. Speaker, I move the adoption of the foregoing resolution.

RESOLUTION NO. 2—INTRODUCED BY THE MARION COUNTY MEDICAL SOCIETY CONTINGENCY FEE LEGISLATION

The Reference Committee is concerned about the problem of malpractice claims and how the contingency fee system effects such claims. Inasmuch as the Medico-Legal Committee has been given the task of studying the problem of liability insurance, it seems that it would be presumptuous for your Reference Committee at this time to make a recommendation to the House of Delegates which could pre-empt the actions of the Medico-Legal Committee before it has time to study the whole field of professional liability insurance and make its own recommendations.

RECOMMENDATION: The Reference Committee recommends adoption of the following resolution.

Resolved, That Resolution No. 2 be referred to the Medico-Legal Committee for further evaluation and action.

Mr. Speaker, I move the adoption of this resolution.

RESOLUTION NO. 1—INTRODUCED BY THE MARION COUNTY MEDICAL SOCIETY
MALPRACTICE SPEAKER

During the course of the hearing it was mentioned that a physician will appear at the Annual Meeting to speak on malpractice insurance. Therefore, the Committee feels that the appearance of Charles A. Hoffman, M.D., President-Elect of the AMA will satisfy the intent of this resolution.

RECOMMENDATION: *Resolved,* That Resolution No. 1 be not adopted.

Mr. Speaker, I move the adoption of the foregoing resolution.

SUPPLEMENTAL REPORT OF THE COMMITTEE ON BLOOD BANKING

The Committee would like to commend W. S. Pheteplace, M.D. and the members of his committee for their work during the past year.

Your Reference Committee is in agreement with the resolution as presented by the Committee on Blood Banking.

RECOMMENDATION: *Resolved,* That the IMS instruct its delegates to the AMA to urge the AMA to continue to assume leadership and to participate actively in the development of any national blood program.

Mr. Speaker, I move the adoption of the foregoing resolution.

HANDBOOK REPORT OF THE COMMITTEE ON DRUG ABUSE

The Committee would like to commend Robert Bittle, M.D., and the members of his committee for their work during the past year.

Those testifying before the hearing were in agreement with the abuse potential of amphetamines. The Committee feels a problem exists in the present form of the recommendation of the Committee on Drug Abuse. It is felt this recommendation could, in effect, be dictating the method of prescription and indication for amphetamines. This would be setting a new precedent which could have far reaching consequences.

RECOMMENDATION: The recommendation of the Committee on Drug Abuse be amended by adoption of the following resolution.

Resolved, That a communication be sent to all members of the Iowa Medical Society urging them to limit the use and prescribing of amphetamines, except in cases of accepted indication.

Mr. Speaker, I move the adoption of the foregoing resolution.

RESOLUTION NO. 17—INTRODUCED BY THE MARION COUNTY MEDICAL SOCIETY
LIMITED TENURE OF AMA DELEGATES

The Committee feels the resolution speaks to the proposition that limiting tenure of AMA delegates is to provide that new people will be elected to positions of responsibility. The Committee feels that limiting tenure to six years may not allow a person ample opportunity to become well acquainted or effective in the AMA House of Delegates. The AMA constitution and by-laws provide for election every two years. This provides an effective mechanism for change. A delegate who the majority of the IMS members feel is not representative or effective in his position can be replaced. An effective delegate should be allowed to continue if re-elected as long as he represents his constituency.

RECOMMENDATION: *Resolved,* That Resolution No. 17 be disapproved.

Mr. Speaker, I move adoption of the foregoing resolution.

RESOLUTION NO. 13—INTRODUCED BY THE CALHOUN COUNTY MEDICAL SOCIETY
CIGARETTE SMOKING

Comments made at the hearing were all in support of this resolution. Also, your Reference Committee agrees that cigarette smoking is dangerous to your health.

RECOMMENDATION: *Resolved,* That Resolution No. 13 be approved.

Mr. Speaker, I move the adoption of Resolution No. 13.

SUPPLEMENTAL REPORT OF THE COMMITTEE ON LEGISLATION

The Committee wishes to commend John Kelley, M.D., Chairman, the members of the Committee on Legislation, the IMS legal counsel and IMS staff members for their part in an effective legislative program.

The Reference Committee heard testimony that the concept of a health maintenance organization (HMO) is a single corporation that will organize and promote a prepayment plan whereby enrollees will receive hospital services and physician services at facilities owned or leased by the corporation and by physicians who are employed by, or under contract with the corporation. The AMA position was reported to be one of supporting a pluralistic approach to the delivery of health and medical care. It is recognized that HMO's are still in an experimental stage and they may or may not be feasible in Iowa.

The Reference Committee was advised that it is not necessary to the success of an HMO that it be authorized to employ physicians on a salary rather than contract with them as a group or as individual practitioners. In fact, most of the existing plans of this sort do contract with, rather than employ physicians.

The Reference Committee noted that an amendment which would have preserved existing Iowa law and prevented HMO's from employing physicians was defeated during the recent debate on S.F. 1212. Your Committee believes this to be particularly important, because of the long standing position of the IMS, to preserve the existing common and statutory law which prohibits corporations from employing physicians and selling their services to the public. The Reference Committee feels the Legislative Committee should make every effort to preserve the corporate practice law in any HMO enabling legislation. The Committee is impressed with the fact that preserving the corporate practice rule is not a matter of economics essentially, but is a matter of avoiding lay interference with the practice of medicine.

RECOMMENDATION: The Committee recommends adoption of the following resolution:

Resolved, That the Committee on Legislation consider HMO legislation a top priority item of interest and that it direct its efforts toward the objective, if HMO enabling legislation is enacted, that it conform to the following basic principles: (1) Physician services should be provided through contractual relationships with groups of Iowa physicians rather than by having physicians as employees of the HMO. (2) En-

rollees should have the option of becoming members of an HMO or have health care coverage provided in some other manner. (3) Authority for establishment of an HMO should be a joint responsibility of the Iowa Insurance Commissioner and the Iowa Health Commissioner, in order that insurance matters would be determined by the Commissioner of Insurance and health matters would be determined by the Commissioner of Health.

Mr. Speaker, I move the foregoing resolution be adopted.

Your Reference Committee agrees with the Legislative Committee that a priority should be set seeking a change in Iowa law in order to allow physicians to serve on the boards of trustees of county hospitals. Physicians currently serve on boards of trustees of private hospitals to the mutual advantage of the medical staff and the hospital.

RECOMMENDATION: *Resolved,* That the IMS seek to change present Iowa statutes so that physicians may serve as trustees on the boards of county hospitals.

Mr. Speaker, I move adoption of the foregoing resolution.

Mr. Speaker, this concludes the report of the Reference Committee on Legislation and Miscellaneous Business.

Respectfully submitted,
TOM KIERNAN, M.D., *Chairman*
C. L. BEYE, M.D.
R. K. BUNTEN, M.D.
D. D. MORGAN, M.D.
D. J. OTTILIE, M.D.

COMMITTEE ON INSURANCE AND MEDICAL SERVICE

The Reference Committee on Insurance and Medical Service met in open session at 2:00 p.m., Sunday, April 23, 1972. Approximately 100 physicians were present for the greater portion of the session and participated in the discussion. There was free and detailed debate on the two reports and 10 resolutions.

SUPPLEMENTAL REPORT OF THE BOARD OF TRUSTEES SECTION II—BLUE SHIELD

The Reference Committee is impressed with the "stewardship" report detailing the vast amount of liaison which has occurred between the Iowa Medical Society and Blue Shield during the past year. One physician commented in open hearing that all physicians should have an opportunity to review the report in some detail so they might understand more thoroughly the extent of Blue Shield's involvement in third party payment for medical services and the role of the Iowa Medical Society in consulting with those responsible for Blue Shield's programs. The Reference Committee believes the information contained in the report is of great importance to Iowa physicians as they consider not only their individual role as a participating or nonparticipating physician but also the extent to which the Iowa Medical Society should be involved with Blue Shield.

The Reference Committee acknowledges that this House of Delegates has on several occasions reiterated its belief that the Iowa Medical Society should continue to be closely related to Blue Shield and to provide support and counsel to the fullest extent possible.

RECOMMENDATION: *Resolved,* That the Board of Trustees be commended for its accomplishments relating to the Blue Shield programs during the past year and that it be encouraged to continue meeting with Blue Shield officials to further improve and strengthen the Blue Shield programs; and be it further

Resolved, That some appropriate mechanism other than the routine publication in the JOURNAL OF THE IOWA MEDICAL SOCIETY be utilized to bring to the attention of all Iowa physicians the information contained in the Supplemental Report of the Board of Trustees—Section II, Blue Shield.

Mr. Speaker, I move the adoption of the foregoing resolution.

RESOLUTION NO. 3—INTRODUCED BY THE CLINTON COUNTY MEDICAL SOCIETY HOLD HARMLESS CLAUSE

The Reference Committee understands that the Blue Shield Board of Directors is considering asking the insurance commissioner for authority to delete from the Blue Shield UCR program the "hold harmless" clause. According to testimony given to the Reference Committee, it may not be possible to delete this provision from all contracts, particularly those such as the Federal Employees Program where rules and regulations are established at the federal level. It appears to the Reference Committee there is general agreement that, if possible, the "hold harmless" clause should be eliminated from the Iowa Blue Shield UCR contract for both participating and non-participating physicians.

RECOMMENDATION: The Reference Committee recommends the adoption of the following substitute resolution in lieu of Resolution No. 3:

"*Resolved,* That the Blue Shield Board of Directors be requested to ask the Iowa insurance commissioner for authority to eliminate from the Iowa Blue Shield UCR contract any reference to 'hold harmless,' before the next annual meeting of the House of Delegates."

Mr. Speaker, I move the adoption of the foregoing resolution, as amended.

The Resolved was amended to insert the following "before the next annual meeting of the House of Delegates," after the words "hold harmless."

RESOLUTION NO. 5—INTRODUCED BY THE CLINTON COUNTY MEDICAL SOCIETY BLUE SHIELD DISCRIMINATION

This resolution refers to the Blue Shield Comprehensive contract which contains provisions regarding payment to physicians which may discriminate against Blue Shield subscribers, depending upon the selection of physician. The Blue Shield Comprehensive contract was approved by this House of Delegates several years ago as an alternative to the former "Blue Chip" contract. The Reference Committee is aware that following some experience with the Comprehensive contract this House of Delegates recommended that Blue Shield establish a Usual, Customary and Reasonable contract and convert the Blue Shield Comprehensive contract to Usual, Customary and Reasonable as soon as possible. Although the Reference Committee is aware of some progress in this conversion, it is obvious that many Comprehensive contracts still exist, which results in continued objection by many Iowa physicians. The Reference Committee recognizes that to eliminate any existing Blue Shield contract takes a certain amount of time, but we are told that the Blue Shield

Comprehensive contract can be phased out very likely within a 36-month period.

RECOMMENDATION: The Reference Committee recommends the adoption of the following substitute resolution in lieu of Resolution No. 5:

"*Resolved*, That the Blue Shield Board of Directors be urged to alter or phase out the Blue Shield Comprehensive contract which discriminates against subscribers based on their selection of physician and that unless altered these contracts no longer be offered to Blue Shield subscribers or potential subscribers."

Mr. Speaker, I move the adoption of the foregoing resolution.

RESOLUTION NO. 4—INTRODUCED BY THE CLINTON COUNTY MEDICAL SOCIETY BOARD OF DIRECTOR MEMBERSHIP

In open hearing, it was reported that the Iowa Foundation for Medical Care will be entering into agreements with Blue Shield and other third parties for the provision of "peer review" services. The Reference Committee believes that if this does occur the possibility of "conflict of interest" could be raised if a physician were to serve concomitantly on the Board of Directors of the Iowa Foundation for Medical Care and the Blue Cross or Blue Shield Boards of Directors.

The Reference Committee is aware that adoption of Resolution No. 4 would presently affect at least five members who serve both on the Blue Shield Board of Directors and the Iowa Foundation for Medical Care Board of Directors. It is the feeling of the Reference Committee that these physicians should be permitted to serve out their present terms.

RECOMMENDATION: The Reference Committee recommends adoption of the following substitute resolution in lieu of Resolution No. 4:

"*Resolved*, That no member of the Iowa Medical Society shall serve concomitantly on the Iowa Foundation for Medical Care Board of Directors, and the Blue Cross or Blue Shield boards of directors; and be it further

"*Resolved*, That any physician presently serving in this dual capacity should be permitted to complete his present term of office."

Mr. Speaker, I move the adoption of the foregoing resolution.

RESOLUTION NO. 6—INTRODUCED BY THE CLINTON COUNTY MEDICAL SOCIETY RESTRICT BOARD MEMBERSHIP OVERLAP

The Reference Committee agrees with several physicians who testified that as many doctors as possible should be encouraged to become active in organized medicine and offer their expertise in serving on appropriate committees, boards and councils. The Reference Committee does not feel there is a conflict of interest between the goals and purposes of the Iowa Foundation for Medical Care and the Iowa Medical Society. The Committee further believes that wherever possible the Executive Council of the Iowa Medical Society should play an important role in the purposes and programs of the Iowa Foundation for Medical Care.

RECOMMENDATION: The Reference Committee recommends adoption of the following substitute resolution in lieu of Resolution No. 6:

"*Resolved*, That the Iowa Medical Society recognizes the possible advantages of physicians serving on boards and councils of both the Iowa Medical Society and the Iowa Foundation for Medical Care and does not believe that the opportunity to serve on these two bodies should be restricted at this time."

Mr. Speaker, I move the adoption of the foregoing resolution.

RESOLUTION NO. 7—INTRODUCED BY THE CLINTON COUNTY MEDICAL SOCIETY BLUE SHIELD ASSIGNMENTS

The Reference Committee is aware that this House of Delegates on several occasions has supported the policy that Blue Shield not accept assignments from patients for services rendered by non-participating physicians. The Reference Committee, however, in open hearings was informed that some members of the Blue Shield Board of Directors feel this policy should be reviewed. The Reference Committee believes there is general support for a reconsideration of this matter.

RECOMMENDATION: The Reference Committee recommends adoption of the "Resolved" portion of Resolution No. 7 with a minor editorial change:

"*Resolved*, That Blue Shield be urged to honor their policyholders assignments to any physician whom the policyholder designates."

Mr. Speaker, I move the adoption of the foregoing resolution.

RESOLUTION NO. 8—INTRODUCED BY THE LEE COUNTY MEDICAL SOCIETY WELFARE AND MEDICAID LIMITATIONS

In the judgment of the Reference Committee, this resolution points up the confusion that can and does exist between covered services under county welfare programs (county poor), Medicare and Medicaid. It was stated in the Reference Committee hearing that the limitation of payment for one physician visit per month applies to the Lee County welfare program (county poor). This limitation does not necessarily apply to the State Medicaid Program or other county welfare programs.

RECOMMENDATION: The Reference Committee recommends adoption of the following substitute resolution in lieu of Resolution No. 8:

"*Resolved*, That the Iowa Medical Society continue to oppose regulations under third party programs which will restrict prescriptions to generic drugs; and be it further

"*Resolved*, That the Iowa Medical Society oppose the limitation of payment for physicians' services based simply on economic factors without taking into consideration the needs of the patient."

Mr. Speaker, I move the adoption of the foregoing resolution.

RESOLUTION NO. 11—INTRODUCED BY THE BLACK HAWK COUNTY MEDICAL SOCIETY RELEASE OF MEDICAL INFORMATION TO INSURANCE COMPANIES, SERVICE CONTRACT CORPORATIONS, GOVERNMENT CARRIERS, AND GOVERNMENT AGENCIES FROM MEDICAL RECORDS DEPARTMENTS IN HOSPITALS

The Reference Committee is impressed with the concern expressed by physicians to protect the confidentiality of medical records, while at the same time assuring the availability of pertinent medical information which will assist the patient in obtaining benefits

available under any program to which the patient is a party. The Reference Committee notes that as an increasing number of third parties enter the field of payment for medical services, greater access to medical records may present a problem. In the opinion of the Reference Committee this problem is most acute as it relates to the medical records within general hospitals but may well expand to medical records for patients within extended care facilities, nursing homes and other institutions. Basic responsibility for the implementation of availability of medical records in general hospitals should, in the opinion of the Reference Committee, remain with the hospital medical staff and hospital administration.

RECOMMENDATION: The Reference Committee recommends adoption of the following substitute resolution in lieu of Resolution No. 11:

"*Resolved,* That in response to all inquiries for medical information, the Hospital Medical Record Department should submit information on the face sheet of the chart, when the request is accompanied by a properly executed authorization for release of information signed by the patient or the patient's personal representative; and be it further

"*Resolved,* That a request for additional information should be reviewed with the physician to make certain that unnecessary confidential information is not released; and be it further

"*Resolved,* That certifications and recertifications should be filed separately from the body of the medical record and should be made available to the carrier or government agency when requested; and be it further

"*Resolved,* That implementation of this resolution should be the responsibility of the Medical Records Committee of the individual hospital medical staff."

Mr. Speaker, I move the adoption of the foregoing resolution.

RESOLUTION NO. 10—INTRODUCED BY THE BLACK HAWK COUNTY MEDICAL SOCIETY AGREEMENTS OR CONTRACTS FOR PEER REVIEW

It is the strong feeling of the Reference Committee that the Iowa Medical Society has carried forth an excellent "peer review" program and has offered these peer review services to third parties, both public and private, to the ultimate benefit of the physicians and their patients. The Reference Committee supports the concept of peer review and believes that Iowa physicians should pursue actively the establishment of a peer review program in this state which will utilize proper measurements of quality, quantity, cost and accessibility of medical services which apply to Iowa rather than be forced to accept "standards" imposed by some outside entity. The Reference Committee is aware that several legislative proposals now before Congress would establish a mechanism for "peer review" within either a state or local geographical region intended to represent the physicians within that selected area. In the view of the Reference Committee, organized medicine at all levels has strongly supported the concept that "peer review" must involve physicians reviewing physicians rather than lay persons attempting to judge the medical care rendered. The Reference Committee feels this is a proper stance for organized medicine.

RECOMMENDATION: The Reference Committee recommends adoption of the following substitute resolution in lieu of Resolution No. 10:

"*Resolved,* That the Iowa Medical Society take all necessary steps to assure that peer review is carried forth only by physicians; utilizing appropriate 'standards' and 'norms' formulated by the medical profession; and be it further

"*Resolved,* That the Iowa Foundation for Medical Care be encouraged to continue its efforts to implement a physician 'peer review' system within its structure which can be utilized wherever appropriate."

Mr. Speaker, I move the adoption of the foregoing resolution.

SUPPLEMENTAL REPORT OF THE BOARD OF TRUSTEES SECTION III—FOUNDATION FOR MEDICAL CARE

The Reference Committee is pleased to learn of the progress enjoyed by the Iowa Foundation for Medical Care since the creation of this organization by the Iowa Medical Society House of Delegates in 1971. The progress report on the Iowa Foundation for Medical Care recently mailed to all Iowa physicians presents a brief synopsis of the Foundation activities.

The Reference Committee recognizes that the feelings of Iowa physicians toward the Foundation do vary, and believes the Foundation Board of Directors is following the proper course in its slow and deliberate attitude toward the development of Foundation programs. The Reference Committee is pleased to hear that the Foundation, in considering the appointment of peer review committees, is following the suggestions of district councilors and wherever possible will retain physicians presently serving on the Iowa Medical Society district peer review committees. The Reference Committee believes the Foundation should continue to keep doctors informed on its plans and programs in an effort to assure Iowa physicians of a voice in the Iowa Foundation for Medical Care.

RECOMMENDATION: *Resolved,* That the peer review activities of the Iowa Medical Society be transferred to the Iowa Foundation for Medical Care at the earliest mutually acceptable date, and be it further

Resolved, That the Iowa Medical Society retain its Subcommittee on Medical Review composed of representatives from the various specialty groups to serve where necessary.

Mr. Speaker, I move the adoption of the foregoing resolution.

RESOLUTION NO. 14—INTRODUCED BY THE SCOTT COUNTY MEDICAL SOCIETY PAYMENT FOR SURGERY AND SURGICAL ASSISTANTS

RESOLUTION NO. 16—INTRODUCED BY THE POLK COUNTY MEDICAL SOCIETY PAYMENT FOR SURGERY AND SURGICAL ASSISTANTS UNDER MEDICARE

The Reference Committee considered these two resolutions together since they both deal with the same subject matter. Those testifying at the open hearing acknowledged the differing practices within the state as they pertain to billing for services provided for surgery. The Reference Committee has reviewed in some detail the background resulting in the creation of the special committee of the Iowa Medical Society to study this problem which culminated in approval by the 1971

House of Delegates of a possible five component billing system for treatment of a surgical illness. The Reference Committee recognizes the work completed has been an honest effort on the part of the Iowa Medical Society to respond to directives from those responsible for the administration of the Medicare program. The Reference Committee agrees that the Carrier's responsibility is to make payment only for identifiable medical services and that a mechanism to accomplish this goal is difficult to formulate.

The Reference Committee has considered several alternatives, including (1) rescinding the 1971 action relating to this subject; (2) continuing the present committee or create a new committee to consider other approaches; and (3) a reaffirmation of a long-standing IMS policy relating to the payment for surgery and surgical assistants which leaves this to local determination so long as the patient is apprised. It is acknowledged by your Reference Committee that regardless of the action taken by the Iowa Medical Society, the Medicare Carrier may be instructed by federal authorities to continue following the five component proposal until those responsible at the federal level for the Medicare program are convinced that a change is indicated. Another possibility mentioned to your Reference Committee is that Medicare officials could merely establish a new program for payment of the components of a surgical illness and mandate that the Carrier conform.

The Reference Committee has also considered the possibility of making no specific recommendation and merely reporting Resolutions No. 14 and No. 16 back to the House of Delegates for its debate and action. The Reference Committee also notes that the new five component system has been in existence such a short time that perhaps it has not been given an opportunity to prove or disprove its capabilities of providing profiles of charges.

The Reference Committee recognizes the difficulty in arriving at specific recommendations which would be favorably received by all those who testified on this question. Even within the Reference Committee there has been a difference of opinion on the most appropriate recommendation and the possibility of a majority and minority report was seriously considered. However, it is the feeling of the Reference Committee that a specific, positive recommendation must be presented to the House, acknowledging that this recommendation does not necessarily represent the unanimous opinion of the Reference Committee but does permit the House of Delegates to determine exactly which course it wishes to follow.

RECOMMENDATION: The Reference Committee recommends the adoption of the following substitute resolution in lieu of Resolutions No. 14 and 16:

"*Resolved,* That the Iowa Medical Society rescind *(see below)* its action of 1971 relating to the payment for surgery and surgical assistants under Medicare.

By a vote of 31 for to 58 against the preceding Resolved was disapproved.

"*Resolved,* That the present committee or a special committee be appointed composed of representatives from surgical specialties and primary physicians to further explore this question and report to the appropriate policy-making body.

"*Resolved,* That the committee give consideration to the establishment of the following components as comprising the total fee-for-service charges for complete care: (1) patient work-up; (2) preoperative care, surgery and post-operative care; and (3) surgical assistant."

Mr. Speaker, I move the adoption of the foregoing resolution.

Mr. Speaker, this concludes the report of the Reference Committee on Insurance and Medical Service.

Respectfully submitted,
W. R. BLISS, M.D., *Chairman*
C. D. ELLYSON, M.D.
J. L. FATLAND, M.D.
RICHARD SCHOONOVER, M.D.
J. W. WHITE, M.D.

The Speaker then asked if there was any new business to come before the House. Dr. Schlaser moved that the House of Delegates approve the actions of the IMS Board of Trustees from the date of the last previous annual meeting. The motion, worded as follows, was seconded and adopted:

Resolved, That the actions of the Board of Trustees of the Iowa Medical Society from the date of the last annual meeting to the present be and hereby are ratified and confirmed.

Dr. Schlaser continued: "Mr. Speaker, I have the pleasant task of offering another motion to the House of Delegates. One could introduce this motion by a lengthy laudatory statement, but I simply want to say personally and on behalf of the other officers of the Society how much we have enjoyed working with our President, Dr. Lyal O'Brien." The commendatory motion by Dr. Schlaser was approved by standing applause.

Dr. Caraway expressed the thanks to the Iowa Chapter of the American Association of Medical Assistants for serving coffee on Sunday. Dr. Caraway then announced the organizational meeting of the Board of Trustees would be held immediately following the adjournment of the House of Delegates, and the organizational meeting of the Judicial Council would occur at that time, too. He also informed the Delegates that the installation of the new IMS president would occur following formal adjournment of the House and prior to those other two meetings.

Dr. Schlaser moved "that the officers of the Iowa Medical Society be authorized to do all things necessary to implement the amendment of the Articles of Incorporation and By-Laws." The motion was seconded and adopted.

The House of Delegates was adjourned at 12:55 p.m.

OFFICIAL ISSUE

The July JOURNAL is designated the official issue and carries the proceedings of the 1972 Annual Session of the House of Delegates of the Iowa Medical Society.

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President-Elect ..... Rubin H. Flocks, Iowa City
Vice President ..... Erling Larson, Jr., Davenport
Secretary ..... Verne L. Schlaser, Des Moines
Treasurer ..... Thomas A. Burcham, Des Moines
Speaker of the House of Delegates
L. Dean Caraway, Amana
Vice Speaker of the House of Delegates
Homer L. Skinner, Carroll

COUNCILORS

	Term Expires
First District, Clarkson L. Kelly, Jr., Charles City ...	1973
Second District, Harry G. Marinos, Mason City	1974
Third District, John M. Rhodes, Pocahontas	1975
Fourth District, Philip J. Monnig, Sioux City	1973
Fifth District	
Sixth District, Albert M. Dolan, Waterloo	1973
Seventh District, John E. Tyrrell, Manchester, Secretary	1974
Eighth District, John F. Collins, Davenport	1974
Ninth District, Keith A. Garber, Corydon	1974
Tenth District, Elmo E. Gamet, Lamoni, Chairman	1975
Eleventh District, Hormoz Rassekh, Council Bluffs ...	1973
Twelfth District, Enfred E. Linder, Ogden	1974

TRUSTEES

Ralph L. Wicks, Boone	1973
Jerome F. Paulson, Mason City	1975
James F. Bishop, Davenport	1974

DELEGATES TO AMA

	Term Expires
Leslie W. Swanson, Mason City	December 31, 1974
Herman J. Smith, Des Moines	December 31, 1974
Elmer M. Smith, Des Moines	December 31, 1973

ALTERNATE DELEGATE TO AMA

	Term Expires
Christian E. Radcliffe, Iowa City	December 31, 1973

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Kenneth E. Lister ..... Ottumwa
Rubin H. Flocks ..... Iowa City
Erling Larson, Jr. ..... Davenport
Verne L. Schlaser ..... Des Moines
Thomas A. Burcham ..... Des Moines
Ralph L. Wicks ..... Boone
Jerome F. Paulson ..... Mason City
James F. Bishop ..... Davenport
Clarkson L. Kelly, Jr. ..... Charles City
Harry G. Marinos ..... Mason City
John M. Rhodes ..... Pocahontas
Philip J. Monnig ..... Sioux City
Albert M. Dolan ..... Waterloo
John E. Tyrrell ..... Manchester
John F. Collins ..... Davenport
Keith A. Garber ..... Corydon
Elmo E. Gamet ..... Lamoni
Hormoz Rassekh ..... Council Bluffs
Enfred E. Linder ..... Ogden
L. Dean Caraway ..... Amana
Leslie W. Swanson ..... Mason City
Herman J. Smith ..... Des Moines
Elmer M. Smith ..... Des Moines
Christian E. Radcliffe (non-voting) ..... Iowa City
Lyal J. O'Brien ..... Fort Dodge
Samuel P. Leinbach ..... Belmond
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THE JOURNAL

Marion E. Alberts ..... Des Moines

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L. R. Fuller ..... Garner
D. A. Howell ..... Dubuque
K. J. Judiesch ..... Iowa City
E. G. Kettelkamp ..... Monona

Blue Shield Liaison Committee (Terms Expire July 1972)

S. P. Leinbach ..... Belmond
C. E. Radcliffe ..... Iowa City
V. L. Schlaser ..... Des Moines
L. J. O'Brien ..... Fort Dodge
R. L. Wicks ..... Boone
J. F. Bishop ..... Davenport

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District 2—J. M. Baker ..... Mason City
District 3—D. F. Rodawig, Jr. ..... Spirit Lake
District 4—A. H. Kelly ..... Sioux City
District 5—John Hess, Jr. ..... Des Moines
District 6—L. L. Zager ..... Waterloo
District 7—S. E. Ziffren ..... Iowa City
District 8—G. C. McGinnis ..... Fort Madison
District 9—Richard Schoonover ..... Bloomfield
District 10—E. E. Gamet ..... Lamoni
District 11—J. L. Knott ..... Council Bluffs
District 12—W. A. Johnson ..... Ames

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G. M. Kuehn ..... Mason City
L. F. Staples ..... Des Moines

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R. G. German ..... Clinton
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J. E. Kelsey ..... Des Moines
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W. C. McCormack ..... Ames
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D. C. Alftine ..... Ames
A. R. Anneberg ..... Carroll
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T. P. Board ..... Waterloo
A. W. Boone ..... Davenport
W. A. Castles ..... Dallas Center
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R. D. Rowley ..... Burlington (1975)
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Diseases	May 1972	1972 to Date	1971 to Date	Most May Cases Reported From These Counties
Brucellosis	8	19	6	Cherokee
Chickenpox	1111	6223	5086	Des Moines, Dubuque, Linn, Polk
Conjunctivitis	198	623	308	Scott, Warren
Encephalitis				
Mumps	1	3	0	Boone
Gastrointestinal viral infection	390	4145	5136	Dubuque, Johnson
German measles	64	363	592	Carroll, Story
Gonorrhea	553	2665	2138	Black Hawk, Polk, Scott
Hepatitis				
Infectious	38	139	150	Linn, Polk, Scott
Serum	8	27	9	Polk, Scott
Histoplasmosis	1	13	8	Appanoose
Impetigo	12	215	198	Clinton, Linn
Infectious mononucleosis	116	514	645	Johnson
Lymphogranuloma Ven.	2	5	0	Hardin, Linn
Measles	329	697	2134	Bremer, Fayette, Linn
Meningitis				
H. influenza	3	6	3	Marshall, Polk, Scott
Meningococcal	1	1	8	Scott
type unspecified	3	10	6	Carroll, Fayette, Lee
Meningo-encephalitis	1	2	1	Johnson
Mumps	895	5547	2772	Carroll, Dubuque, Linn
Pneumonia	89	432	452	Scott
Rabies in Animals	29	122	119	Scattered
Rheumatic fever	5	22	35	Dubuque, Floyd, Jackson, Linn, Scott
Ringworm, body	10	52	71	Jackson
Salmonellosis				
S. braenderup	1	1	0	Woodbury
S. enteritidis	1	6	3	Story
S. heidelberg	1	8	0	Scott
S. java	2	3	1	Black Hawk, Linn
S. kottbus	1	1	0	Dubuque
S. montevideo	1	1	0	Floyd
S. newport	3	7	7	Lee
S. typhimurium	6	16	8	Marshall, Polk
S. typhimurium var copenhagen	1	3	0	Pottawattamie, Woodbury
Shigellosis				
S. flexneri	2	4	1	Johnson, Polk
S. sonnei	28	111	26	Polk, Scott
Streptococcal infections	689	4052	4003	Johnson
Syphilis	41	206	275	Polk, Scott, Wapello
Tuberculosis, active	2	41	60	Cerro Gordo, Scott
Whooping cough	11	26	14	Johnson, Warren

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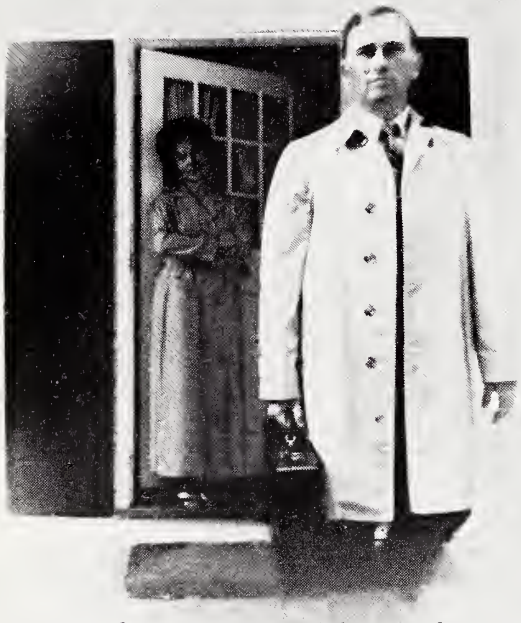
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Teufel, John C. ..... Davenport
Thomas, Clyde E. ..... Croton-on-Hudson, New York
Thomas, Colin G. ..... Monticello
Thompson, Kenneth L. ..... Oakland
Thornton, John W. ..... Lansing
Trey, Bernard L. ..... Marshalltown

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Watts, Clyde F. ..... Marengo
Weems, Nev E. ..... Paullina
Weston, B. Raymond ..... Mason City
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When it's mandatory to keep the post-coronary patient calm, consider Valium (diazepam).

Although he's promised to take it easy back on the job, you know he's going back to the same stressful circumstances that may have contributed to his hospitalization. If he experiences excessive anxiety and tension because of overreaction to stress, your prescription for Valium can bring relief. During the period of readjustment Valium can quiet undue anxiety.

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Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

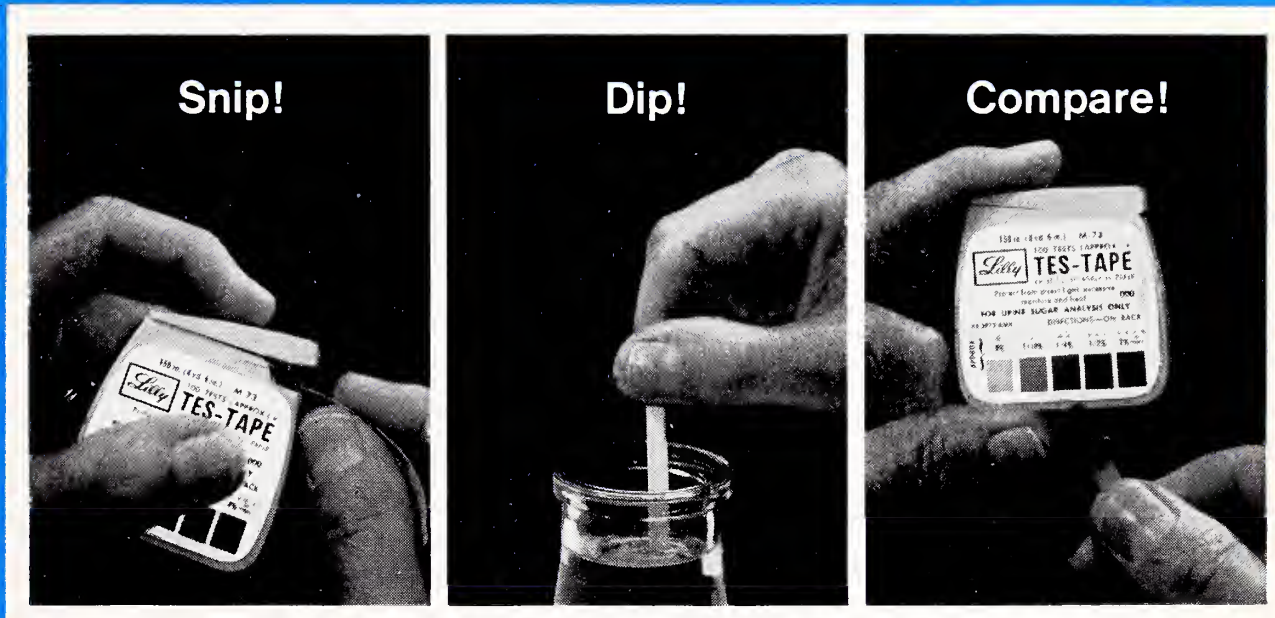
Dosage: Individualize for maximum beneficial effect. *Adults*: Tension, anxiety and psychoneurotic states, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients*: 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children*: 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

Supplied: Valium® (diazepam) Tablets, 2 mg, 5 mg and 10 mg; bottles of 100 and 500. All strengths also available in Tel-E-Dose® packages of 1000.

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• Annual Report of Iowa Foundation — Page 416

• Dermatitis from Herbicide Use — Page 419

AUGUST 1972



Everybody experiences psychic tension.



Most people can handle this tension.



Some people develop excessive psychic tension and need your counselin



and a few may need counseling
and the psychotropic action of Valium® (diazepam).

Before deciding to make Valium (diazepam) part of your treatment plan, check on whether or not the patient is presently taking drugs and, if so, what his response has been. Along with the medical and social history, this information can help you determine initial dosage, the possibility of side effects and the ultimate prospects of success or failure.

While Valium can be a most helpful adjunct to your counseling, it should be prescribed only as long as excessive psychic tension persists and should be discontinued when you decide it has accomplished its therapeutic task. In general, when dosage guidelines are followed, Valium is well tolerated (see Dosage). For convenience it is available in 2-mg, 5-mg and 10-mg tablets.

Drowsiness, fatigue and ataxia have been the most commonly reported side effects.

Until response is determined, patients receiving Valium should be cautioned against engaging in hazardous occupations requiring complete mental alertness, such as driving or operating machinery.

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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

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Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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(diazepam)

To help you manage excessive psychic tension

President's Page



At the recent AMA annual meeting in San Francisco, California, the IMS was well represented and carried out its responsibilities to the physicians of Iowa in excellent fashion.

The House of Delegates studied and disposed of more than 120 resolutions plus reports of officers, councils and committees. The decisions reached will affect the practice of medicine in many ways. Though the decisions will not always satisfy each individual, they were decided in a democratic process.

One of the most important actions of the House, affecting the future image of the AMA, was the development of a Section for House Officers and another Section for Medical Students. The medical students will have full representation in the House and membership on councils and committees. This action satisfies the young physician and invites his participation in organized medicine.

The organization of a student medical society at The U. of I. is proceeding with encouragement and assistance being provided by the IMS. This action will strengthen our Society and provide for participation in the IMS by a new generation of Iowa physicians.

B Eckenhoff, MD

President

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IOWA Medical Miscellany

NEW BLUE CROSS PRESIDENT . . . Dave Neugent assumes the presidency of the Des Moines Blue Cross Plan this month. Mr. Neugent succeeds Bill Guy who leaves Iowa to head the Blue Cross program in Los Angeles. Mr. Neugent has been associated with Wisconsin Blue Cross for 20 years and has been a senior vice president.

CONFER WITH INSURANCE COMMISSIONER . . . Society President K. E. Lister, M.D., joined with Blue Shield officials in a late June meeting with State Insurance Commissioner William Huff. The meeting was for the purpose of reviewing various of the Blue Shield contracts with particular emphasis on complex "hold harmless," "prior agreement," etc., provisions.

NATIONAL NUTRITION MEETING . . . The Society of Nutrition Education holds its annual meeting in Des Moines August 1, 2 and 3. Program participants include Philip White, D.Sc., of the AMA Council on Foods and Nutrition.

FAMILY PRACTICE . . . The number of physicians taking graduate training in family practice has increased from six to 24 in a year's time. Robert Rakel, M.D., head of the U. of I. Department of Family Practice, predicted in a recent report to the State Board of Regents that within five years 78 residents in family practice will be training in Iowa.

CONTROLLED SUBSTANCES ACT OF 1970 . . . Copies of a manual entitled "Practitioners Informational Outline of the Controlled Substances Act of 1970" have been mailed to all IMS members. The manual contains important information including the addresses of regional offices of the Bureau of Narcotics and Dangerous Drugs. Physicians with questions on registration, recordkeeping, security, etc., should contact the BNDD Regional Office, 811 Grand Avenue, Suite 231, Kansas City, Missouri, or the Iowa Pharmacy Board, Narcotics Division, Valley Bank Building, Des Moines.

EXAMINERS RE-APPOINTED . . . Governor Robert Ray has re-appointed Frank R. Peterson, M.D., Cedar Rapids, and Roger Anderson, D.O., Davenport, to the State Board of Medical Examiners.

MEDICARE BULLETIN . . . The complicated economic stabilization guidelines which must be followed by the Medicare carriers are summarized in a bulletin which has been distributed by Blue Shield to all Iowa physicians and other providers of service.

SUDDEN INFANT DEATH CONFERENCE . . . A regional conference on the sudden infant death syndrome will occur in Des Moines on Tuesday, September 26. The event is to be held at the Des Moines Area Community College and is being coordinated by the Seventh District of the Iowa Nurses' Association. Physician experts on this subject will be on the program which is open to interested Society members.

KIDNEY FOUNDATION LIAISON . . . The Society's Committee on Organ Transplantation has been requested to serve as the liaison body with the Kidney Foundation of Iowa, Inc. The Foundation has in the planning stage a series of conferences for physicians and nurses on kidney disease and its treatment.

APPROVE DES MOINES PROGRAM . . . The medical assistant training program at the Des Moines Area (Area XI) Community College was approved recently by the AMA Council on Medical Education. The Des Moines school is among first to be approved since the Essentials for Approved Educational Programs for Medical Assistants were revised in 1971 to include one year programs. The medical assistant program at the Des Moines Area Community College is five years old. It enrolls students each September. Seventy-two students have successfully completed the course; 23 students are scheduled to graduate this month.

NEW MEDICAID COVERAGE . . . Effective July 1 eligible children under six years of age are to be included in a new facet of the Medicaid program which provides early and periodic screening, diagnosis and treatment. ADC children (there are approximately 22,500 under six) will be requested to participate in the screening and diagnosis activity. Initial screening may be pro-

(Continued on page 434)

THE JOURNAL OF THE IOWA MEDICAL SOCIETY

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AUGUST 1972

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Postmaster, send form 3579 to the above address.

IOWA Specialty Groups

Editor's Note: *The 1972 Iowa Medical Society House of Delegates urged increased liaison between state specialty organizations and the IMS. In an effort to be responsive to this expression of the House, the* JOURNAL *plans to present on a regular basis news of those specialty organizations which are active in Iowa. We have invited editorial contributions from the several groups and will continue to encourage the forwarding of information.*

IOWA CLINICAL SURGICAL SOCIETY . . . Spring meeting of the Society was May 5 and 6 in Council Bluffs. Hosts were C. V. Edwards, Sr., M.D., J. D. Hennessy, M.D., E. B. Mathiasen, M.D., K. E. Goebel, M.D., R. H. Westfall, M.D., C. M. Adli, M.D. and Jose Martinez, M.D. Presentations were made by faculty from the Nebraska and Creighton Schools of Medicine. J. R. Walker, M.D., Waterloo, succeeded G. W. Bennett, M.D., Oskaloosa, as president.

IOWA CHAPTER, AMERICAN ACADEMY OF PEDIATRICS . . . Chapter will meet in Iowa City in conjunction with a Conference on Pediatrics to occur September 13 and 14.

IOWA UROLOGICAL SOCIETY . . . Society will meet in Iowa City in connection with a Urology Postgraduate Conference on September 15 and 16.

IOWA ACADEMY OF OPHTHALMOLOGY & OTOLARYNGOLOGY . . . Annual meeting of the Iowa Academy of Ophthalmology & Otolaryngology will be September 15 in the Memorial Union at The University of Iowa in Iowa City. Current Academy officers are T. R. Updegraff, M.D., Waterloo, president; R. A. McKay, M.D., Waterloo, president-elect; E. L. Grandon, M.D., Cedar Rapids, vice-president; and G. E. McFarland, M.D., Iowa City, secretary-treasurer.

IOWA SOCIETY OF ANESTHESIOLOGISTS . . . Society will meet in Iowa City September 22-23 and participate in a postgraduate conference.

IOWA ACADEMY OF SURGEONS . . . Academy will confer in Iowa City September 22-23 in connection with a postgraduate course.

IOWA CHAPTER—AMERICAN COLLEGE OF SURGEONS . . . Spring meeting was June 2 and 3 in Iowa City with resident physicians and their wives as guests. Next meeting will be December 2 in Des Moines. Chapter has proposed a study of peer review mechanisms with other surgical societies.

IOWA CLINICAL SOCIETY OF INTERNAL MEDICINE . . . Roger Drown, M.D., Fort Dodge, has succeeded E. J. Hertko, M.D., Des Moines, as secretary-treasurer. A new aspect of the internal medicine residency program at The U. of I. College of Medicine began July 1 wherein residents will spend one month working in the office of an Iowa internist. Fall meeting of the Society will be December 2 in Iowa City. Interim meeting of the American Society of Internal Medicine will be September 28-30 in Las Vegas.

IOWA OBSTETRICAL AND GYNECOLOGICAL SOCIETY . . . The Society will meet in connection with a postgraduate course it is co-sponsoring December 6 and 7 at The University of Iowa College of Medicine in Iowa City. New Society officers are Richard Moore, M.D., Des Moines, president; Milton Mark, M.D., Des Moines, vice-president; Charles A. White, M.D., Iowa City, secretary-treasurer, and council members: Kenneth Lemon, M.D., Oskaloosa, L. C. O'Toole, M.D., LeMars, and John Napier, M.D., Cedar Falls.

President's Report

Iowa Foundation for Medical Care

J. H. SUNDERBRUCH, M.D.
Davenport

I AM PLEASED TO ADVISE that the Iowa Foundation for Medical Care is today a most viable instrument. It is still obviously and understandably in its infancy, but its vital signs are excellent and its prognosis is good. Growing pains are readily apparent. Its one-year gestation period (1970-71) included the following:

(1) A careful assessment of the emerging foundation concept.

(2) An extensive series of 18 informational meetings around the State.

(3) A special meeting of the Iowa Medical Society House of Delegates.

(4) A final and formal acceptance of the Foundation mechanism at the regular meeting of the 1971 IMS House of Delegates.

The preceding events constitute the conception process. With the approval of the IMS House of Delegates, the Articles of Incorporation were filed and on May 19, 1971 the Iowa Foundation for Medical Care moved from fetus to infant.

The Foundation philosophy is set forth succinctly in the first of 11 stated purposes in the corporate charter: *"To develop, promote and encourage the distribution of quality medical services to those served at an equitable cost and in an appropriate quantity."*

OPERATIONAL BLUEPRINT

The Foundation Board of Directors met initially on June 9, 1971 to devise an operational blueprint. The Board has met on several occasions since to refine and activate the blueprint. For purposes of coordination and day-to-day execution of Foundation affairs, the chief executive officer of the Iowa Medical Society has the same over-all administrative responsibility with the Foundation. The assistant executive vice president acts as staff coordinator. In addition, we are pleased to report that Mr. Richard McMaster was appointed on April 17, 1972 as the Foundation's first full-time employee. He is well qualified to assist in the development of the Foundation program.

The financial status of the Foundation is moderately healthy when its short life span is considered. As of April 1, 1972, Foundation income was represented totally by a $30,000 grant from the John Deere Foundation plus $10 in dues from each of over 1,000 members.

To seek to strengthen the fiscal condition, Foundation officials appeared this April before a grant review committee of the National Center for Health Service Research and Development. On this occasion the Foundation's application for a two-year grant was evaluated in some detail. I am pleased to report that subsequent to this, on June 27 to be specific, a one-year grant to the Foundation in the amount of $65,000 was announced.

SEEKING EXPERTISE

The Foundation Executive Committee has conferred with representatives of Peat, Marwick, Mitchell and Company about ways in which the expertise of this firm's medical and computer consultants might be of benefit in the development of Foundation programs. This communication is continuing and we are extremely optimistic about the potential of this arrangement.

Foundation officers and staff have been in frequent contact with representatives of the Foundation for Health Care in Minneapolis. Your president also (1) spent a day reviewing the operation of the Colorado Foundation for Medical Care, and (2) attended a meeting of foundation and health insurance industry officials in San Francisco to explore ways in which providers of service and third parties might collaborate in accomplishing the aims of the foundation movement.

This report on the Iowa Foundation for Medical Care was presented by its president, J. H. Sunderbruch, M.D., at the Foundation's Annual Meeting July 20.

In its first year the Iowa Foundation for Medical Care was invited and became a member of the American Association of Foundations for Medical Care. Your president will be a delegate and your first vice-president is an alternate delegate to the first annual meeting of the AAFMC House of Delegates which is to occur in August. Your president is also on the program committee for this meeting.

On June 29, the Foundation president and staff attended a PAS-MAP regional workshop in Chicago, and on July 9-11 staff attended an Experimental Medical Care Review Organization Continuing Education Workshop in Salt Lake City.

These various meetings have been attended in the hope that Iowa Foundation personnel can become thoroughly familiar with other similar programs. And in doing so, it is the hope of the Foundation leadership that success can be achieved and problems can be kept to a minimum.

NORMS AND STANDARDS

Norms and standards for medical care have been in the development stage for an extended period. Their preparation has taken time and painstaking effort. This work has been undertaken by the IMS Subcommittee on Medical Review. I am happy to report that this project has reached fruition. Copies of the "standards" have been made available to the chiefs of staffs of the 140 Iowa general hospitals. This is an impressive looking document.

The peer review committee structure of the IMS has been revamped so now there are six districts for peer review. The district committees have been structured and the Foundation is prepared to assume the responsibility for peer review. This will occur on a date mutually acceptable to the IFMC and the IMS.

We are able to report that the elective process as set forth in the governing language has been implemented. Based on the election of past days we are able to present a new Board of Directors at this our first annual meeting.

Throughout our brief life span we have involved interested osteopathic physicians and surgeons in Iowa. These individuals have been strong in their expressions of confidence in the Foundation as the instrument to support providers of care in meeting health care goals in this state. We have also had excellent cooperation from the University of Iowa College of Medicine.

In concluding these brief remarks, may I say this has been a rewarding experience. The going has been slow and tedious at times, but we earnestly believe this will result in a strong "foundation" and one which will meet the goals which we have enunciated.

FOUNDATION BOARD RE-ELECTS SUNDERBRUCH

John H. Sunderbruch, M.D., Davenport, was elected to a second one-year term as president of the Iowa Foundation for Medical Care at the organization's annual meeting July 20 in Des Moines. Named to other Foundation offices were Kenneth E. Lister, M.D., Ottumwa, 1st vice president, J. L. Monahan, M.D., Clinton, 2nd vice president, R. J. Dawson, M.D., Estherville, secretary, and T. A. Burcham, M.D., Des Moines, treasurer.

In a significant action taken at the Foundation annual meeting, a recommendation from the Iowa Medical Society was accepted which calls for the Foundation to assume the peer review activities presently performed by the Society. The peer review function will be carried out in a new format which includes six district committees each composed of 14 physicians. The Iowa Medical Society will retain a statewide review committee to consider appeals or other peer review matters not falling within Foundation jurisdiction.

In addition to the Board's election of officers, the following Iowa physicians were acknowledged to have been elected as Foundation district directors by their colleagues: District I—Terry Dynes, M.D., Decorah; District II—J. H. Brinkman, M.D., Mason City; District III—R. J. Dawson, M.D., Estherville; District IV—P. J. Monnig, M.D., Sioux City; District V—J. H. Kelley, M.D., Des Moines; District VI—T. R. Spragg, M.D., Waterloo; District VII—J. L. Monahan, M.D., Clinton; District VIII—J. H. Sunderbruch, M.D., Davenport; District IX—K. E. Lister, M.D., Ottumwa; District X—D. E. Mitchell, M.D., Mount Ayr; District XI—Max Olson, M.D., Minden, and District XII—George Hegstrom, M.D., Ames.

Additional directors are R. H. Flocks, M.D., Iowa City; Erling Larson, Jr., M.D., Davenport; R. L. Wicks, M.D., Boone; J. F. Paulson, M.D., Mason City; J. F. Bishop, M.D., Davenport, and Roger Anderson, D.O., Davenport.

Radiology Window

by ENRIQUE CUBILLO, M.D.

CASE 4

The film is of a 56-year-old female referred to a general surgeon with the major complaint of epigastric pain after heavy meals of several years duration. A second history of intermittent claudication was obtained in the office after interrogation by systems. The physical examination reveals a normal abdomen and lack of pulses in the low extremities.

Differential Diagnosis:

1) Carcinoma of the colon.
2) A. V. malformation.
3) Aneurysm of the left colic.
4) Abdominal angina, second to chronic obstruction of the superior mesenteric artery.

Please select the most likely diagnosis from the preceding list. Turn to page 446 for a discussion of this case and a further radiographic study.

This radiologic feature has been prepared and provided by Enrique Cubillo, M.D., who is associated with the Mallinckrodt Institute of Radiology, Barnes Hospital, Washington University, St. Louis, Missouri 63110.



Figure 1. AP Abdominal Aortogram showing generalized arteriosclerosis with narrowing of both iliac arteries. In addition, a large colic artery fed by the inferior mesenteric artery can be clearly seen.

SEPTEMBER SCIENTIFIC PROGRAM SCHEDULED IN BURLINGTON

The Des Moines County Medical Society will host a half-day seminar at the Burlington Golf Club on Wednesday, September 13. Three presentations are scheduled:

Hypertension: Alexander Schirger, M.D., Associate Professor, Department of Medicine, Mayo Clinic, Rochester, Minn.

Diabetes Mellitus: F. A. Zacharewics, M.D., Chief of Endocrinology, VA Hospital, St. Louis, Mo.

Antibiotics in Infectious Diseases: Stuart Levin, M.D., Chief, Section on Infectious Diseases, Rush Medical College & Rush Presbyterian St. Luke's Medical Center, Chicago, Ill.

The course is approved for four hours credit by the American Academy of Family Physicians. Interested physicians are invited to contact S. F. Guiang, M.D., Program Director, 620 N. 8th Street, Burlington, Iowa.

SCIENTIFIC ARTICLES

Dermatitis Resulting from Herbicide Use—A Case Study

JOHN E. SCHLICHER, M.D., and
VICTOR B. BEAT, D.V.M.
Iowa City

THIS IS A CASE STUDY of a 40-year-old white farmer who cultivates 480 acres of corn, soybeans and oats. He also feeds 450 cattle a year.

On Saturday, May 8, 1971, a spray rig was borrowed to apply atrazine (herbicide). By 10:30 a.m. the nozzles had plugged several times. They were cleaned with bare hands. During the afternoon Bladex (herbicide) was sprayed for 3 hours. About 1:30 p.m. blisters began forming on the patient's hands and forearms. When seen at 3:30 a.m. on May 9, at the University Hospitals, Iowa City, the patient had a painful erythematous eruption with blistering of both hands and forearms. There was also much swelling in these areas.

The past history is remarkable in that the patient had had difficulty with Ramrod®[2] (herbicide) one year ago. He had pronounced blistering of the skin and a generalized dermatitis of the hands, forearms, legs, penis and ears. Late in April of 1971 he used Ramrod® again, and after using two 50-lb. bags of granules he noted mild blistering of the skin. As a result he discontinued using it. A week later he received a complete physical examination by the Iowa Community Pesticides Study and was ascertained to be in good health.

Past skin history is essentially negative except as mentioned in the preceding. The patient had no known allergies. When seen at University Hospitals significant physical findings were limited to the hands and forearms. There was much swelling and pain in these parts. The hands were erythematous and hemorrhagic bullae were seen between the fingers. The pulmonary and other systemic physical findings were normal.

The diagnosis was acute contact dermatitis. Codeine was given intramuscularly, and it was also prescribed per orally to be taken at home. He was given 60 mg of prednisone orally.

The patient was seen again nine hours later when a photograph of the hands was taken (Figure 1). The hands were more ecchymotic and more vesicles were present. Treatment consisted of giving 60 mg of prednisone orally at once and continued with a decreasing dosage of prednisone daily for 4 days. The hands were soaked in ¼% acetic acid for 1 hour 3 times a day for 3 days. On the 4th day the

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THE SCANLON MEDICAL FOUNDATION/IOWA MEDICAL SOCIETY HAS DESIGNATED THIS ARTICLE AS THE HENRY ALBERT SCIENTIFIC PRESENTATION FOR THE MONTH OF AUGUST, 1972.

patient was seen again when a second photograph was taken (Figure 2). The pain had ceased and the swelling had decreased slightly. As a prophylaxis against infection 250 mg of tetracycline was prescribed four times a day orally for 10 days. The ¼% acetic acid soaks four times a day were continued for 10 days.



Figure 1. Photograph taken 9 hours after patient was admitted for treatment. Hands erythematous and hemorrhagic bullae between fingers.



Figure 2. Photograph taken on the 4th day, swelling has decreased slightly.



Figure 3. Photograph taken 23 days after first photograph. Hands healing rapidly, some scaling and ecchymosis evident.

Twenty-three days later (Figure 3) the hands were healing rapidly even though some residual scaling and ecchymosis was evident. Twenty-eight days later the hands and forearms were 90% healed. The presence of residual dermatitis precluded the use of patch tests with the possible offending herbicides. This procedure was deferred until several months later in order to ensure that there would be no untoward effects from the patch tests.

About two weeks after the initial exposure, scaly round areas accompanied by itching developed on the patient's feet, upper legs, groin and buttocks. This was diagnosed as a fungal infection by KOH examination and cultures and treated with 500 mg griseofulvin orally with the evening meal for 30 days. The fungal infection was not believed to be related to the contact dermatitis episodes.

SUMMARY

A case of acute contact dermatitis to herbicides involving a farmer is presented. Treatment with codeine, prednisone, tetracycline and acetic acid soaks was successful.

The chemical names of the herbicides are as follows:

Atrazine—2-chloro-4-ethylamino-6-isopropylamino-*s*-triazine

Ramrod®—2-chloro-N-isopropyl acetanilide

Bladex—2-(4-chloro-6-ethylamino-s-triazin-2-ylamino)-2-methylpropionitrile

I REMEMBER WHEN . . . DO YOU?

The scarlet fever epidemic of the early thirties. I had a family of five all ill at the same time, only the mother was well and could care for the others. With no sulfa, no antibiotics, the treatment was essentially palliative with the stress on the maintenance of good bodily function, with fluids, rest and relief of pain. All survived because of basically good physical condition, but it was touch and go. The advent of sulfa and antibiotics has certainly changed the picture, not only with scarlet fever, but with many other illnesses of the infectious type.—OTTO N. GLESNE, M.D., *Chairman, IMS Historical Committee.*

Evolution of a State Mental Hospital From Custodial Care To Intensive Psychiatric Treatment Center

SELIG M. KORSON, M.D.
Independence

In 1973 the Mental Health Institute, Independence, Iowa, will mark 100 years. The Institute is situated in the Northeast part of the State and serves a catchment area of over 700,000 people. It is a state mental hospital which has been able to shed the anachronism of a typical stereotyped state hospital. It has been successfully converted to an intensive treatment psychiatric center. For many years the hospital was a typically under-staffed, extremely over-crowded state hospital. We had a peak patient load of over 1,700 patients 25 years ago.

In 1958 a concerted effort was made to upgrade the mental health program. At that time we still had crowding and staffing problems with a daily census of over 1,100 patients. We had an average of 900 admissions. Our mental health program at that time lagged far behind most of the states. An enlightened Iowa General Assembly, spurred by an aroused citizenry, made available the funds to reverse the trend. It was decided then that instead of putting more money into bricks and mortar, funds should be directed to making professional salaries more attractive in order to recruit top-grade professional staff from all over the United States.

How well have we succeeded? We have reduced our census over 83% since 1946 and 74% of that reduction has been since 1958. Instead of a custodial state hospital of 1,700 beds, we now have an acute, intensive psychiatric treatment center averaging 300 patients, with an admission rate of over 1,800 patients a year. Our average length of stay for new admissions is now 40 days. As we have reduced our hospital population, we have been able to increase markedly the ratio of professional staff to patients. By 1964 we had one professional staff member to every 6.7 patients and by 1971 we had one professional staff member to every 3.5 patients. This far exceeds the United States average which is about one in 20. Overall we have 455 employees for 300 patients and our doctor-patient ratio is one physician for 13 patients. Our hospital is fully accredited by the Joint Commission on Accreditation of Hospitals, and we are approved by the American Medical Association and the American Board of Psychiatry and Neurology as a three-year training center for psychiatrists. With this certification we have been able to attract not only psychiatrists, but professionals in related fields, such as social workers, psychologists, activity specialists and others, to round out our treatment team. Six months ago we became affiliated with The University of Iowa College of Medicine and senior medical students now serve their ward clerkships in psychiatry at our hospital. Our senior psychiatric staff is accredited as faculty by the College.

Now how did we go about becoming an acute intensive psychiatric treatment center? First of all it was incumbent on us to attempt to remove the stigma of mental illness, to give the patient a sense of worth, responsibility and human dignity. It was important, to begin with, to obviate some of the dehumanizing aspects of state hospital living. We proceeded

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to make the physical surroundings more attractive. Thirteen years ago the physical aspects of the hospital were depressing and dehumanizing. The wards were painted in either battleship gray or dark and depressing colors. There was an urgent need for repainting. The ward furniture resembled standard electric chairs. The large bulky chairs were designed to prevent patients from lifting them to strike each other. There was a mattress factory on the grounds which offered mechanical devices which stuffed hair into mattress covers to produce very lumpy, uncomfortable mattresses. The beds were the old ironstead type in vogue at the turn of the century. Patients still walked up and down the wards monotonously pulling on large wooden blocks wrapped with burlap to polish the floors. The dress of the patients reflected the custodial type of institution. The men wore overalls and the women wore sack dresses. There was no difficulty whatever in distinguishing the patients from the staff.

The hospital was a locked hospital with only about 10% of the patients having freedom of the grounds. We proceeded to make the wards more comfortable and home-like, replacing the ugly, uncomfortable hair mattresses with foam mattresses and the old beds with new. New modern comfortable furniture was obtained.

Each individual patient is now given his own locker and a key so he may have some privacy. His laundry is individually packaged, just as it is in a commercial laundry and is delivered to him individually. The relatives of our patients are asked to provide appropriate clothing, and if unavailable, we provide the patients with suitable clothing. There are very few bizarre, eccentric looking stereotyped mental patients on our campus. Eighty-five per cent of the patients are on unlocked wards and the bars have been removed from all the windows throughout the hospital. Ward government was instituted on all wards. The patients now elect their own officers and are allowed to make decisions in regard to their day to day living. Their recommendations are seriously considered by the administrator. Remotivation techniques, a form of group therapy, are instituted on all wards with the psychiatric aides as the group leaders.

In terms of organizational structure, the hospital is decentralized into a number of semi-autonomous units. For the general psychiatric adult patient there are two equally staffed small units which rotate admissions. The patient remains in the same unit during his entire stay in the hospital with the same professional staff in attendance. This allows a continuity of treatment.

The treatment program for the alcoholic accounts for a third of our admissions. The average length of stay for the patient in this program is six weeks. The unit utilizes open wards and the treatment program consists of large and small group therapy, industrial therapy, a full activity program, recreation therapy, music, homemaking and other modalities. Thirty cities in our area send their Alcoholic Anonymous groups to the hospital twice weekly on a regular schedule. They meet with the patients and act as an aftercare resource. An active Out-Patient Service is available for the patient and marriage counseling for both patient and spouse is insisted on for a time after the patient leaves the hospital. Eighty-two per cent of the patients discharged from the Alcohol Unit maintain sobriety for at least a year.

Our 50-bed Children's Unit for emotionally disturbed children is housed in a modern new building containing all the treatment facets and living quarters. A fully qualified child psychiatrist directs the program, and he is assisted by a senior psychiatric resident. There is a full complement of social workers, psychologists, recreation therapists, assisted on a part-time basis by an occupational therapist, music therapist, pastoral counselors and others from the parent hospital. A recognized school, manned by certified teacher-therapists, offers individualized instruction in elementary and high school grades. Emotionally disturbed children, 8 to 16 years of age, are admitted and the average length of stay is six and one-half months. A separate Adolescent Unit of 22 beds admits youngsters between the ages of 16 and 21. Acting out problems including drug abuse and delinquent behavior predominate in this group. Individual and group therapy, behavior modification techniques, including operant conditioning and all types of activity therapy are utilized. Vocational rehabilitation is an important facet of this program.

We have an Out-Patient Department with a caseload double that of the in-patient census. The Out-Patient Department serves two pur-

poses: (1) as a preventive measure to help keep patients out of the hospital, and (2) as an aftercare facility for our in-patients who need continued treatment while they are attempting to adjust again to the community stresses which face them.

An intensive treatment program for the geriatric patient was instituted with the help of a grant from the National Institute of Mental Health. As a result of our studies with the geriatric patient, we have found that working intensively with this group of patients produces results of a positive nature. We have found that in a large number of elderly patients the basic disorder is of a general medical character. Many mental syndromes are based on cardiac decompensation, infections, or other medical disorders not recognized initially as a precipitating factor. After the precipitating cause has been removed, these patients improve markedly and often can return to their homes and go under the care of the family physician. We also have found a group of patients in which there exists a considerable amount of functional, psychologically determined pathology. Many of these are depressed due to traumatic experiences such as the loss of a life partner, loss of business, retirement or some other environmental stress. With group psychotherapy, individual therapy and the use of all our activity programs, many of these patients have been able to return to their homes in an improved condition. Results obtained in our Geriatric Program were presented at the Silver Anniversary Meeting of the American Geriatrics Society in 1968 and subsequently published in the JOURNAL OF THE AMERICAN GERIATRICS SOCIETY.[1]

In regard to the educational program, we feel we have all the facets of a teaching hospital. In addition to the medical student clerkships in psychiatry and the psychiatric residency program already mentioned, we have an affiliate nursing program in which students from nine schools of nursing are in residence at our hospital for eight weeks of experience in psychiatric nursing.

Our hospital is approved for the teaching of pastoral counselling by the Association for Clinical Pastoral Education, Inc. We have both a winter semester and a summer program of Pastoral Counselling for Catholic Priests, Catholic Sisters and Protestant Ministers and Seminarians. We have an affiliation with a number of colleges in Iowa for practicum training of their undergraduate sociology, psychology and education students. In addition, we have one college which sends us occupational therapists in training, others send us recreation students for various periods of time in residence. The senior dental students at the University of Iowa College of Dentistry rotate through our program also. We have a pharmacy intern program and a dental assistant student training program as well.

In regard to our own employees, under the National Institute of Mental Health Grant, we have developed a staff improvement program which is an in-service education program for the orientation of new employees. The ongoing course of instruction covers 15 weeks and includes lectures, films, demonstrations, all designed to assist employees in becoming better members of the treatment team. Our teaching efforts make use of closed circuit television, two-way mirrors and all types of audio-visual equipment.

In regard to the overall philosophy of treatment, we use the team approach in a therapeutic community with the psychiatrist as captain of the team, together with a social worker, psychologist, nurse, psychiatric aide and activity therapy specialist. The latter includes occupational therapy, music therapy, library use recreational therapy and industrial therapy. In the latter, assignments for 33 areas in the hospital are prescribed by the doctor to fit the specific needs of the patient. We have a homemaking unit which is housed in a simulated four-room apartment with all the equipment and furnishings that go in to making a home. Patients here are able to enhance their skills in the various facets of homemaking, such as planning of meals, cooking, sewing and use of modern electrical home appliances, and even shopping in the community. We have an adult education unit which includes two certified teachers who help the patients learn and discover or recover some of the skills they have lost during their illness. Patients are taught good grooming, they are instructed on how to approach an employer to get a job, and they are helped in developing self-confidence in a total education process. We have a fully staffed vocational rehabilitation unit to restore and develop the personal independence of

handicapped persons, such as the mentally ill, to enable them to help themselves become employed or as self-sufficient as possible.

How do we get our message to the public? Our program has three facets:

1. A speaker's bureau to all types of organizations in the community.

2. A weekly 15-minute taped radio program called "Mental Health Is Everybody's Business" is beamed to eight radio stations in nine cities in our catchment area.

3. Audio-visual programs using color slides are sent out to all kinds of service organizations, parent-teacher groups, church groups and others narrating the various facets of our mental health program. Our public information officer is available to answer questions during the program.

SUMMARY

In summary, a custodial type state hospital was converted into an intensive psychiatric treatment center.

How was this accomplished? With increased appropriations by an enlightened legislature we have been able (1) to remove the dehumanizing aspects of the hospital environment, (2) to give patients a sense of worthiness and dignity, and (3) to attract a qualified professional staff. Statistically, we have been able to reduce our census by 75% in a little over a dozen years. During this period, our admission rate has doubled and the average length of stay has been markedly reduced.

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Modern Use of the Biopsy In the Diagnosis of Neurological Disease

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Iowa City

THE DIAGNOSTIC POTENTIAL of biopsy specimens (brain, peripheral nerve and muscle) used in the investigation of various neurological disorders has been expanded greatly by newer techniques. Of particular significance is the examination of epoxy-embedded tissue by light and electron microscopy. The indications for muscle and peripheral nerve biopsy are generally well established, and the procedures involve minimal risk. Brain biopsy is less widely used; however, criteria for selection of appropriate cases have been thoroughly reviewed.[1, 2, 3] In some acute illnesses, such as suspected herpes simplex encephalitis, brain biopsy may be the most appropriate diagnostic method to permit rapid institution of therapy with pyrimidine analogues. In many chronic disorders, biopsy studies will provide a more precise delineation of diagnosis and prognosis, and often assist in genetic counseling. The discouraging frequency of failure in establishing a diagnosis by classical light microscopy has been significantly reduced by the application of newer techniques, including the examination of epoxy-embedded tissue by light and electron microscopy. This paper will describe some of these techniques which are suitable for routine use in most diagnostic laboratories. It will illustrate their application with examples from this laboratory.

In order to benefit from these newer methods, meticulous attention must be paid to the procurement and processing of the biopsy specimens. The routine formalin fixation is inadequate for the preparation of the epoxy-

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embedded specimens. The following schemata outline simple but adequate techniques for biopsy procurement and initial processing.

1. *Brain*—The specimen should be obtained by craniotomy with sharp dissection, since injudicious use of electrocautery will produce misleading artifacts. The block of tissue must contain both gray and white matter, and should measure at least 1.5 cm in each dimension. The tissue should promptly be placed in either picric acid formaldehyde (PAF)[4] or phosphate buffered 4% glutaraldehyde solution (pH 7.4). With appropriate processing, this tissue can then be embedded in paraffin for conventional light microscopy and in an epoxy resin for more specialized light and electron microscopic studies.

2. *Muscle*—Clinical and electrodiagnostic findings should be considered in selecting a muscle to be biopsied. Care must be taken to sample a muscle involved by the disease process, yet not so severely involved as to yield the appearance of "end-stage" muscle. In the latter situation, the diagnostic value of the specimen is severely diminished, if not entirely negated. Sites of recent injections, punctures by EMG needles and prior surgical manipulations should be avoided. Care must be taken not to infiltrate the specimen with local anesthetic. Sharp dissection of a block of muscle (not a wedge) and isometric fixation, preferably with a special clamp,[5, 6] is important. Hemostasis should be accomplished only after the specimen is removed. The bulk of the muscle to be biopsied may limit the specimen size; however, in most patients a specimen measuring at least 1.0 x 0.5 x 0.5 cm can be obtained. A larger specimen would be preferable. Upon removal, the specimen should be wrapped in gauze moistened with 0.9% saline and 10-15 minutes allowed to elapse before immersion in the fixatives, since immediate fixation is likely to produce contraction artifacts. A small piece should be fixed in glutaraldehyde for subsequent epoxy-embedding while the remainder of the specimen should be left in the clamp and fixed in Susa solution[7, 8] for conventional light microscopy.

3. *Peripheral Nerve*—Sharp dissection with a minimum of traction should be employed in obtaining these biopsies. The specimen should be fixed promptly in PAF, from which it can be processed for both light and electron microscopy. When dealing with small specimens, as from children, it is often better to embed the entire biopsy specimen in epoxy resin.

Following the initial aldehyde fixation, tissues intended for epoxy embedment are regularly divided into very small blocks and post-fixed in phosphate buffered 2% osmium tetroxide solution. As a result, the tissue architecture is well preserved, and lipid components such as the myelin sheaths and certain storage materials are less extensively eluted by the organic solvents subsequently used in dehydration and infiltration. We routinely prepare 1-2μ thick sections from the epoxy-embedded specimens, and stain the sections with paraphenylenediamine.[9] This stain is complementary to the osmium fixation since it reacts with tissue-bound osmium complexes, thus accentuating the osmophilic structures.

Light microscopic examination of these 1-2μ thick sections of epoxy-embedded tissue serves several purposes. Careful examination of the epoxy-embedded sections will provide a great deal of valuable diagnostic information and will facilitate selection of those blocks suitable for subsequent electron microscopic examination. In the 1-2μ thick sections there is less superimposition of structures, and thus better resolution of details than in conventional paraffin embedded sections. The small block size and double fixation prior to embedment result in superior preservation with less shrinkage artifact and dissolution of storage materials.

Unstained epoxy sections can be viewed by phase microscopy, but staining facilitates the study of these sections and the correlation of the findings with those in conventionally prepared and stained sections. Paraphenylenediamine staining was originally developed for use with osmium-impregnated central nervous system tissues,[10] but has been modified to provide a simple and rapid stain for epoxy-embedded sections.[9] Although it is relatively non-specific, myelin sheaths, lipid storage deposits, lipofuscin, mitrochondria, and the cross striations in muscle are particularly well demonstrated. Paragon-1301® is a commercial polychromatic stain, generally for use on frozen sections. It can be adapted for use on epoxy-embedded sections by raising the pH to 11 and by gentle heating.[11, 12] Although it is also non-specific, it

Figure 1. Neuronal Ceroid-Lipofuscinosis (Batten's Disease). The neurons contain slight excess of PAS-stainable material. (Paraffin embedded tissue; PAS; ×480.)

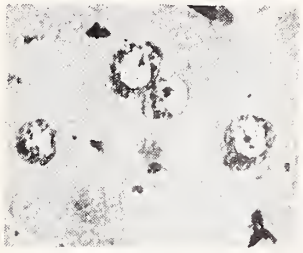


Figure 1

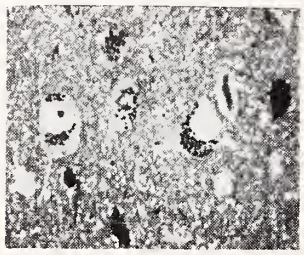


Figure 2

Figure 2. Neuronal Ceroid-Lipofuscinosis (Batten's Disease). In the sections of epoxy-embedded tissue, the pathological accumulation of ceroid-lipofuscin appears as multiple irregular granules in neuronal cytoplasm. (Epoxy-embedded tissue; paraphenylenediamine; ×560.)

produces an appearance more like that seen with hematoxylin and eosin. The stain in especially effective in demonstrating various inclusion bodies such as Cowdry type A intranuclear inclusions, Lafora, Pick and Hirano bodies. Other similar techniques include the use of toluidine blue[13] and Azure II-methylene blue.[14] Periodic acid Schiff and periodic acid silver methenamine[15] techniques can be applied to the epoxy-embedded sections for the demonstration of glycogen and other polysaccharides.[16, 20]

The judicious use of epoxy-embedded sections stained by the aforementioned techniques can greatly augment the information derived from conventionally prepared and stained paraffin embedded sections. It is then a relatively simple matter to select the proper blocks for electron microscopic study, allowing the biopsy specimen to be further utilized for diagnostic or investigative studies. Ultrathin (40 to 80mμ) sections can be cut on an ultramicrotome, mounted on fine mesh copper grids and stained with uranyl acetate and lead citrate prior to electron microscopic study.

The following cases illustrate the application of the techniques discussed in this paper.

Figure 3. Neuronal Ceroid-Lipofuscinosis (Batten's Disease). This electron micrograph demonstrates that the ceroid-lipofuscin granules are composed of fingerprint-like arrays of membranous profiles. (Uranyl acetate and lead citrate; ×44,000.)

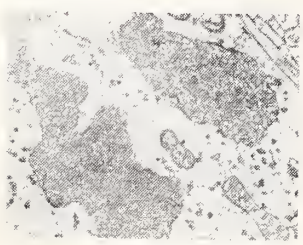


Figure 3

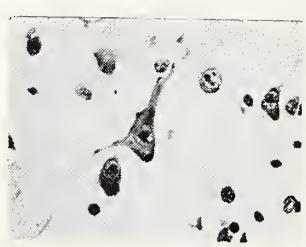


Figure 4

Figure 4. Jakob-Creutzfeldt Disease. The conventional paraffin-embedded section fails to reveal any abnormality in the cortical gray matter. (Paraffin embedded tissue; hematoxylin and eosin; ×480.)

CASE ONE

A 4-year-old boy with petit mal seizures for 1½ years, grand mal seizures for 9 months, progressive psychic and motor deterioration was found to be hypotonic and with bilateral Babinski signs. Pneumoencephalography demonstrated severe cortical atrophy and a right frontal brain biopsy was done to establish a diagnosis. The tissue was fixed in PAF. Sections prepared from paraffin embedded tissue revealed a slight excess of periodic acid Schiff stainable material in cortical neurons (Figure 1). The 1-2μ thick sections of epoxy-embedded tissue showed that the cortical neurons contained multiple irregular granules that stained darkly with paraphenylenediamine (Figure 2). Electron microscopy further characterized the granules as consisting of finger-print-like arrays of membranous profiles (Figure 3). Together these observations established the diagnosis of neuronal-ceroid lipofuscinosis or Batten's disease.[17]

CASE TWO

A 61-year-old man was admitted with rapidly progressive dementia, seizures and generalized muscular wasting. Pneumoencephalography revealed mild cerebral atrophy. A right frontal lobe brain biopsy was performed and the tissue was fixed in PAF. Sections prepared from the paraffin embedded tissue revealed only mild gliosis, more pronounced in the white matter than the gray matter (Figure 4). The 1-2μ thick sections of epoxy-embedded tissue revealed a previously inapparent vacuolation throughout the gray matter (Figure 5). Subsequent electron microscopy demonstrated that the cortical vacuolation resulted primarily from a dilatation of preterminal and terminal axons, and to a lesser extent from a dilatation of dendrites (Figure 6). These morphological changes, when considered with the clinical course, supported a diagnosis of Jakob-Creutzfeldt disease. The ultrastructural features in

the present case closely resemble those previously described.[18, 19]

CASE THREE

A 43-year-old man presented with a 3-year history of progressive weakness and muscle wasting that was most conspicuous in the intrinsic muscles of the hand. Fasciculations were noted and the electromyographic findings were considered to be consistent with denervation. The patient was suspected of having amyotrophic lateral sclerosis and a muscle biopsy was performed. Instead of the expected neurogenic atrophy, the sections of paraffin embedded tissue revealed a striking vacuolar myopathy (Figure 7). The 1-2μ thick sections of epoxy-embedded tissue showed that the vacuoles were actually pools of stored material that stained by the periodic acid Schiff technique (Figure 8). Electron microscopic examination further demonstrated that the stored material was morphologically normal glycogen (Figure 9). Subsequent biopsies were studied biochemically (Dr. B. I. Brown, Washington University, St. Louis, Mo.) and revealed a deficiency in the activity of amylo 1,6 glucosidase or debrancher enzyme. In this case, the morphological studies served to establish a diagnosis of a glycogen storage disease despite the unusual clinical presentation.[20] However, a precise diagnosis of the type of glycogenosis required further biochemical studies to determine the particular enzyme defect. It is probable that the low pH of the Susa fixative led to the dissolution of much of the stored glycogen and led to the initial impression of a vacuolar myopathy.

CASE FOUR

The patient was a 21-year-old woman with lifelong weakness and progressive atrophy of her lower legs. Her mother, 3 uncles, a maternal stepbrother and 2 first cousins were similarly affected. Her sural nerve was biopsied and fixed in PAF. Because of the small diameter of the specimen, adequate sections of the paraffin embedded tissue were difficult to prepare. However, the 1-2μ thick sections of the epoxy-embedded tissue clearly demonstrated a striking reduction in the number of myelinated nerve fibers and an abrupt (segmental) demyelination in those few remaining (Figure 10). These changes were consistent

Figure 5. Jakob-Creutzfeldt Disease. In the sections of epoxy-embedded tissue, vacuolation is evident throughout the gray matter. (Epoxy-embedded tissue; paraphenylenediamine; ×560.)



Figure 5

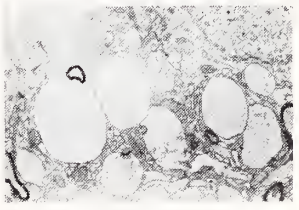


Figure 6

Figure 6. Jakob-Creutzfeldt Disease. This electron micrograph demonstrates that the vacuolation results primarily from dilatation of the preterminal and terminal axons, and to a lesser extent from dilatation of dendrites. (Uranyl acetate and lead citrate; ×9000.)

Figure 7. Type III Glycogenosis (Cori or Forbes' Disease). In the sections of paraffin-embedded tissue, this storage disease appears as a vacuolar myopathy. (Paraffin embedded tissue; hematoxylin and eosin; ×110.)

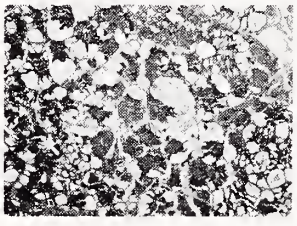


Figure 7



Figure 8

Figure 8. Type III Glycogenosis (Cori or Forbes' Disease). In the sections of epoxy-embedded tissue the vacuoles are shown to be pools of PAS positive material. (Epoxy-embedded tissue; PAS; ×400.)

Figure 9. Type III Glycogenosis (Cori or Forbes' Disease). This electron micrograph demonstrates that the PAS-positive storage material is morphologically normal glycogen. (Uranyl acetate and lead citrate; ×22,000.)

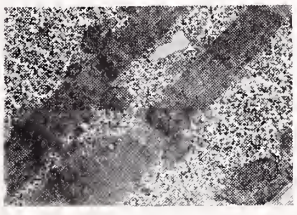


Figure 9



Figure 10

Figure 10. Peroneal Muscular Atrophy (Charcot-Marie-Tooth Disease). This epoxy-embedded section clearly demonstrates the striking reduction in the number of myelinated nerve fibers and the segmental nature of the demyelinating process. (Epoxy-embedded tissue; paraphenylenediamine; ×400.)

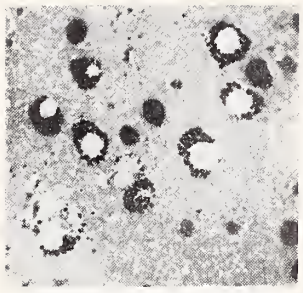


Figure 11

Figure 11. GM-2 Gangliosidosis (Tay-Sachs Disease). The spheroidal cytoplasmic inclusions observed in this section of epoxy-embedded tissue correspond to the characteristic membranous cytoplasmic bodies that are seen with the electron microscope. (Epoxy-embedded tissue; paraphenylenediamine; ×560.)

with the diagnosis of the autosomal dominant form of Charcot-Marie-Tooth disease, as suggested by the physical findings and family history.

CASE FIVE

A 2-year-old Negro boy was admitted to the University Hospitals because of progressive weight loss and difficulty in swallowing following an illness described as "measles" contracted 1 year earlier. He was found to be irritable and exhibited occasional teeth grinding and decerebrate posturing. His optic discs were pale and "cherry red spots" were found only in retrospect. He was hypertonic. A right frontal brain biopsy was carried out and the tissue fixed in PAF. Striking intraneuronal cytoplasmic bodies were found, best seen in the epoxy-embedded 1-2μ thick sections (Figure 11). The diagnosis of Tay-Sachs disease was suggested and confirmed by electron microscopy.

SUMMARY

The diagnostic potential of biopsies employed in the investigation of neurological disease can be greatly enhanced by use of newer techniques including light and electron microscopic examination of epoxy-embedded tissue. Schemata for the procurement and initial processing of brain, muscle and nerve biopsies are outlined. The applicability of these techniques are illustrated with selected cases.

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The references noted in this article are available on request from either the authors or the JOURNAL OF THE IOWA MEDICAL SOCIETY.

Blood Loss During Vaginal Surgery—An Evaluation

SAMIR D. GERGIS, M.D., and
LEO J. DeBACKER, M.D.
Iowa City

THE VAGINA IS SURROUNDED by a rich venous plexus which is often a source of bleeding during surgery on that region. This is especially so if there is related inflammation, increased venous pressure or if the dissection is not in the proper tissue plane. This study evaluates factors relating to blood loss during A-P repair or vaginal hysterectomy with A-P repair. One hundred thirty-eight patients underwent such surgery during 1969-1970. The surgeons were various members of the gynecology staff. The anesthesiologists likewise varied. Anesthetic agents and techniques were chosen as usual by the attending anesthesiologist. Electrocautery was not utilized during the surgery. Premedication consists essentially of a narcotic with or without an anticholinergic drying agent. Patients were infused with dextrose 5% in lactated ringer. Blood was given when any patient lost about 10% of her estimated blood volume.

Blood loss measurement combined the extraction of blood from drapes and sponges with measurement of that collected by suction. The soiled linens were washed in a known volume of distilled water so that the concentration of electrolyte in the wash water related to the volume of blood involved. Solutions used to wet sponges and for wound irrigations were restricted to a measured volume of distilled water so that the sole source of electrolyte

The authors are associate professors in the Department of Anesthesia at the U. of I. College of Medicine.

TABLE I

Age Years	24-30	31-40	41-50	51-60	61-70	71 and Above	Total
No. patients	23	38	25	25	19	8	138

was blood and volume of blood in the suction system could be correctly calculated. A portion of the wash water was utilized to rinse the suction system. The principle utilized is the change in electrical conductivity imparted by the released electrolytes which has its only source the blood elements. The machine used for that purpose was checked to be accurate down to 10 ml blood.

The age distribution of the 138 patients is shown in Table I. Forty patients had senior staff surgeons, the remainder were operated upon by resident physicians. The anesthetic agents utilized are tabulated in Table II. Blood

TABLE II

Agent	No. Cases
Fluothane	61
Subarachnoid block	22
Extradural block	12
Ether	12
Cyclopropane	11
Pentothal	9
Penthrene	7
Fluoroxene	2
Innovar	1
N_2O and Curare	1
Total	138

loss under regional (spinal or epidural) anesthesia averaged 245 ml in the senior staff series and 420 ml in the resident staff series. Blood loss under halothane-N_2O anesthesia averaged 472 ml in the senior staff series and 697 ml in the resident staff series. Blood loss under the remaining anesthetic agents averaged 520 ml in the senior staff series and 696 ml in the resident staff series (not greatly different from halothane). The relation of the blood loss to age (under either regional or general) is shown in Figure 1.

DISCUSSION

The data relate blood loss during vaginal surgery to three factors:

1. **Age of patient:** Average blood loss increases through age from 41-50 years, then gradually declines. This could be interpreted as diminished utero-pelvic vascularity with development of menopause.

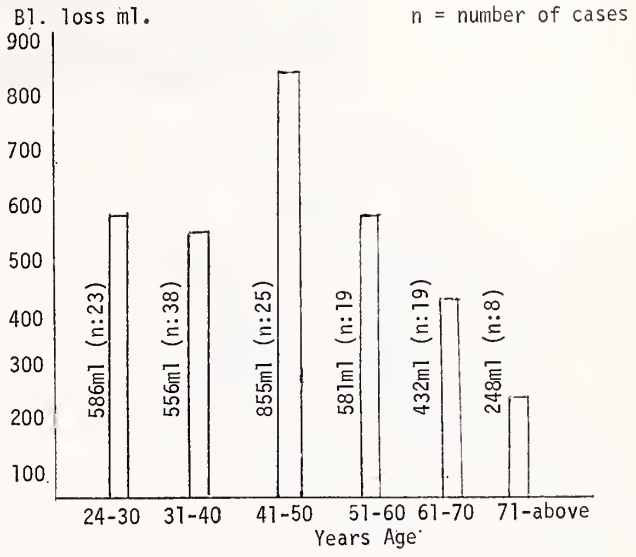


Figure 1

2. **Anesthetic technique:** Average blood loss was generally less during regional anesthesia than during general anesthesia. Arterial hypotension was not involved. One might make a case for difference in breathing pattern. General anesthesia often involves forceful sustained exhalation which would tend to increase venous pressure.

3. **Experience of the surgeon:** Average blood loss was less if the surgeon was of the senior staff. This held true without regard to age of patient or anesthetic technique.

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Editorials

M. E. ALBERTS, M.D., Scientific Editor

DO YOU REALLY CARE?

The title of this editorial comment is not mine. I have borrowed it from D. J. Ottilie, M.D., who practices in Oelwein, Iowa. On June 12-14, 1972 the Iowa Academy of Family Physicians held its annual Spring Postgraduate Conference at Lake Okoboji. I was honored to be a member of the program panel, and was impressed by the enthusiasm of the family physicians attending the conference. Their responsiveness was genuine. The questions asked of the speakers were thoughtful and demontrated that these physicians have a sincere desire to add to their medical knowledge, in order to better serve their patients. But, that was not all.

Dr. Ottilie discussed in a forthright manner the necessity for the physicians to become involved in more than maintaining an office for the practice of medicine. The Iowa Academy of Family Physicians as a group provided medical service for members of the Iowa General Assembly during the recent session. Thirty-five physicians gave one, two, or three days to this program and each one had both a rewarding and informative experience. To be in the midst of the legislative deliberations has a two-fold return: first, the State legislators know the involved physicians are interested in and concerned about governmental programs; secondly, the physician himself gains an awareness of the functions and intricacies of the governmental process. Leonardo da Vinci (1452-1519) observed, "The acquisition of any knowledge whatever is always useful to the intellect, because it will be able to banish the useless things and retain those which are good. For nothing can be either loved or hated unless it is first known."*

The family physicians are well motivated, as is seen in this effort to better understand the legislative process in Iowa. The increasing demand—the almost continuous cry—for more physicians does not fall upon deaf ears among the members of the medical profession. It is recognized that the key to increased numbers of primary physicians is top-notch training of competent individuals in numbers adequate to meet the demand. The answer is not to release upon the public through accelerated programs physicians who may lack *insight and maturity.* The family physicians of Iowa desire a Family Practice Education Program with adequate fiscal punch to be effective enough to provide what Iowa citizens want and deserve—highly competent family physicians. This can be accomplished through family physician residency programs of high caliber and in sufficient scope to balance the demand and supply equation.

The program of the State of Minnesota was cited as an example—a legislative program comprising about four million dollars of funding during the past year. The Minnesota Academy of Family Physicians became so involved in this endeavor that it was able to obtain a spot for a family physician on the State Board of Regents.

The Iowa Academy of Family Physicians is similarly emphasizing family practice training programs in its various contacts. The obvious goal is the production of the type of physicians we need and the people want. Improvement

* Cited by Strauss, Maurice B. (editor), 1968, FAMILIAR MEDICAL QUOTATIONS, Little, Brown and Co., Boston. p. 254.

of the total health care picture in Iowa should be the objective of the medical profession. Surgeons, internists, obstetricians and pediatricians, as well as other Iowa specialists, should give encouragement, time and talent to the family practice training program as well as other worthwhile projects. We need to speak to the legislators and the public with a unified voice through the profession's principal instrument, the Iowa Medical Society. I am sure most Iowa physicians are, and they can be called upon to serve when needed.—M.E.A.

THE STAR OF LIFE

There is a growing need for a universally-accepted symbol which can be identified readily with emergency medical service. In 1963 the American Medical Association designated the "star of life" designed to draw attention to persons with individual health problems requiring special attention. The design consists of the serpent-entwined staff of Aesculapius superimposed on a six-pointed star of life. When this symbol is surrounded by a hexagonal frame, which is the universal symbol to "Stop," there is further admonition to look for information which may save a life.

In 1968 the AMA voted to encourage the American Association of State Highway Officials and the Federal Highway Commission to work toward adoption of the International System of Highway Signs. This system utilizes symbols rather than printed words to give direction or warn of possible danger to travelers. In 1970 the AMA urged adoption of the star of life symbol as a uniform highway sign in the United States, and in June 1971 the Board of Directors of the American College of Emergency Physicians officially acknowledged and supported this emergency medical symbol.

In the May/June issue of the JOURNAL OF THE AMERICAN COLLEGE OF EMERGENCY PHYSICIANS, one of the founders and a past chairman of that organization, John G. Wiegenstein, M.D.,* reports progress on the adoption of this symbol. The ACEP supports the AMA efforts to establish trail-blazing signs on interstate and other major highways to indicate the direction and distance to the nearest qualified emergency medical facility. These proposed signs would have the star of life symbol prominently displayed with the designation "clinic" or "dispensary" or "hospital" as well as the distance and an arrow pointing to the proper direction. However, these promotion efforts have come to a relative standstill because of two controversies: (1) the definition of a qualified emergency facility with personnel and equipment to render care at any and all hours, and (2) the common use of a white "H" symbol or a red cross to indicate a medical facility. The National Committee on Uniform Traffic Laws and Ordinances apparently is staying with the white "H" but has suggested experimental use of the star of life symbol. As Dr. Wiegenstein indicates, the white "H" is meaningless in a different alphabet language. Furthermore, the red cross is a copyrighted symbol of the American Red Cross. It seems very appropriate that a medically designated symbol should be wholeheartedly supported. The star of life symbol has strong medical support in the AMA and the ACEP; that support should be more widespread so that adequate medical care can be more easily available to the traveler. As more hospitals render full-time emergency services by qualified medical personnel, the need for universally understood direction indicators will become even more important.—M.E.A.



* Wiegenstein, John G.: AMA star of life needs to be recognized. J. AM. COLL. EMERG. PHYS. 1:15-17, 1972.

MEDICAL WRITING

An interesting discussion of the need for local medical journals is contained in a recent editorial in the JOURNAL OF THE ALBERT EINSTEIN MEDICAL CENTER* (Philadelphia). L. A. Healey, M.D. (editor of THE BULLETIN of the King County Medical Society of Seattle, Washington), as a guest editorialist, asserts that the promulgation of good medical writing is a justifiable reason for the continuation of hospital and local medical journals. While national journals have wider circulation and are more prestigious, the local periodicals have their unique role in medical publishing.

Good medical writing may be an inherent skill; it can be developed however by training and experience. Most researchers and scientists are trained only in their professional field, and have no training in semantics. Their communication is narrow and rigid. Dr. Healey envisions hospital bulletins and local medical journals as "little literary magazines" that encourage clear, concise, persuasive writing. These journals can serve as models for younger scientists to study in developing a readable style of writing. Who knows, some great scientific discoveries might be fully understood at the time of publication and not have to be rediscovered some years later by someone who could finally decipher the original communication. Writing a medical report is an important task, and it can be so much more meaningful to the reader when done in a less rigid, less ambiguous style which de-emphasizes the scientific jargon.—M.E.A.

* Healey, L. A.: JOURNAL ALBERT EINSTEIN MEDICAL CENTER, 20:1, Spring, 1972. pp. 3-4.

HAWAII—VS—ALASKA

Being on the editorial staff of the JOURNAL is of benefit in various ways. For example, it affords the opportunity to review many of the other state medical journals; this is a privilege not available to the average practicing physician. The state journals have a number of similarities in format, content and editorial thrust. However, each state society has its unique local problems which the resident physicians must understand and resolve.

Two journals which are intriguing to me are ALASKA MEDICINE and the HAWAII MEDICAL JOURNAL. These two youthful states in our Union are widely divergent in background and culture. Yet each offers to its segment of the medical profession a journal of excellence. Many of the subjects discussed are of interest to the midwesterner.

First, let us look at the April 1972 issue of ALASKA MEDICINE. The cover, printed in subtle blues and yellows, depicts an "Alaskan Medical Saga" . . . a montage of "people, places, time and things" in the career of Dr. Milo Fritz who worked among the native people of Alaska. The barren wilderness, the lone polar bear, the sled dogs, a tiny mission, and the montage of medical activity presents a complete story. Through the entire issue there are photographs of Alaskan scenery and life. The scientific presentations address themselves to such universal subjects as drug laws, medical records, and suicide prevention; and, then, there is an essay on "traditional medical cures along the Yukon" by Ginger A. Carroll. Here is an exposé of the powers of the shaman among the Eskimo peoples, as well as an enumeration of a number of folk remedies. For example, it is described how sore eyes may be treated by scratching them with the remains of a cyst cut from a caribou which had been attacked by a fly. Further, there is a section aptly titled "Northern Highlights" consisting of abstracts of reports on medicine in the north, e.g., fish tapeworm in western Alaska, botulism among Cape Dorset Eskimos, and plasma lipid patterns of Greenlandic Eskimos. The entire journal is pleasantly rendered, the printing of excellent quality, and I sense a tone of conservatism and reserve throughout the entire book.

In contrast, let us look at the March/April 1972 issue of HAWAII MEDICAL JOURNAL, a beautifully composed, well-organized book with a reproduction on the cover of a W. Hogarth en-

graving entitled "Don Quixote seizes the barber's bason for Membrines Helmet." Scientific articles relate to breast cancer, pulmonary embolism, air pollution, and then a local interest paper on starfish wounds. Those starfish are something else—irritating, not dangerous, but potentially a significant health threat—in Hawaii. The study on air pollution addresses itself to the problems of automobile exhaust gases at a large shopping center in Honolulu. This is a well documented study of a problem that can be just as great in Des Moines, Cedar Rapids, Sioux City, or Davenport.

Most state medical journals have a section devoted to news notes about their members, and Hawaii is no exception. The news editor, Henry J. Yokoyama, M.D., writes well in a serious as well as a jocular vein. He is abreast of the happenings of the Society and inserts notes on medical subjects as well as commentaries on the lighter side. In the March/April issue note was made of the appearance of Iowa's Donovan Ward, M.D., at the County Medical Society meeting, and his having been introduced as "a really great guy." A few jokes are interspersed—some of a type familiar to a popular magazine noted for its centerspread study in anatomy. Most of the news notes are serious and pertinent—good news coverage I am sure. The HAWAII JOURNAL is a beautiful publication, an inside view of the medical profession in a semi-tropical zone—more free and easy, yet just as serious and of as high quality as the State of Alaska.

I salute the staff members of these two excellent journals published by and for our medical collegues in Alaska and Hawaii. Well done, and best wishes for the future.—M.E.A.

UNIVERSITY HONORS PETERSON

Recognition in double measure came to Cedar Rapids surgeon Frank R. Peterson, M.D., early in June. In the first instance, on June 2, the new Frank R. Peterson Surgery Conference Room at The University of Iowa General Hospital was unveiled to honor the former head of that department. As a further testimonial, Dr. Peterson was named professor emeritus of the Department of Surgery by John W. Eckstein, M.D., dean of the College of Medicine.

Dr. Peterson was professor and head of The U. of I. Department of Surgery from 1936 to 1947. Since 1947, Dr. Peterson has been in the private practice of surgery in Cedar Rapids and from 1962 to 1971 he served as director of intern education at Mercy and St. Luke's Hospitals in Cedar Rapids. He also was a consultant in surgery at the Iowa City Veterans Administration Hospital from 1947 to 1962.

Dr. Peterson is a native of Laurens and has the bachelor of science and medicine degrees from the U. of I. He is a member of the State Board of Medical Examiners.



HONORED—Shown here are Frank R. Peterson, M.D., left and Sidney E. Ziffren, M.D., on the occasion of Dr. Peterson's being named professor emeritus of the Department of Surgeon at The University of Iowa. They are pictured at the entrance of a new Surgery Conference Room that will bear Dr. Peterson's name. Dr. Ziffren is professor and head of the Department of Surgery.

Iowa Physicians are invited to attend—
NORTH IOWA SPORTS MEDICINE SYMPOSIUM
Sheraton Motor Inn, Mason City, Iowa
AUGUST 12, 1972

IOWA MEDICAL MISCELLANY

(Continued from page 413)

vided by physicians, county health departments, Crippled Children Services, etc. A special screening invoice form has been developed by the Department of Social Services for use by those who provide services.

HEALTH EXHIBITS AT FAIR . . . The Iowa Medical Society, as a component of the Iowa Health Council, will sponsor several educational exhibits at this month's Iowa State Fair. Exhibits on alcoholism and the endocrine system have been secured from the AMA for display at the Fair.

AGING & CHRONIC ILLNESS MEETS . . . The Society's Subcommittee on Aging and Chronic Illness conferred July 18 with Elmer Smith, M.D., Director, Bureau of Medical Services, State Department of Social Services, and with Arnold M. Reeve, M.D., State Commissioner of Health.

NUMBERS GAIN . . . There are now nearly 345,000 physicians in the United States and its possessions—an increase of 10,795 from the previous year's total. According to the AMA's Center for Health Services Research and Development, 90.1 per cent are involved in the direct care of patients as their primary activity. Over 60 per cent of these are in six areas: general practice (19.2%), internal medicine (14.3%), general surgery (10.3%), psychiatry (6.7%), obstetrics and gynecology (6.5%) and pediatrics (6.0%).

PHYSICAL FITNESS . . . Three Society members have been named to the Governor's Council on Physical Fitness and Sports. So serving on the 19-member Council are E. E. Linder, M.D., Ogden, R. W. Anderson, M.D., and J. E. Kelsey, M.D., both of Des Moines.

WISCONSIN EDUCATION . . . State Medical Society of Wisconsin is assessing its 4,000-plus members $10 each to conduct an education program to inform state legislators and the public regarding chiropractic's threat to public health.

NO PHYSICIAN DRAFT . . . The Department of Defense has announced it does not expect to draft any doctors into the military during the fiscal year which began July 1.

SUCCESSFUL PROGRAM . . . The Iowa MECO Project (Medical Education—Community Orientation) has tripled in size since it began in 1970. This summer physicians and hospitals in 34 Iowa cities are providing 10 weeks of experience in community medical practice for 65 U. of I. medical students. Seventeen students participated the first year. Cooperating in the project are the Iowa Chapter of the Student American Medical Association, the College of Medicine, the Iowa Medical Society and the Iowa Hospital Association. Two-thirds of the MECO participants nationwide have expressed a desire to return to the same or a similar community to practice.

SURGICENTER OPENS . . . The Department of Otolargyngology and Maxillofacial Surgery has opened a surgicenter at The U. of I. Hospitals. The unit will provide for more ambulatory surgery. It is named for Dean M. Lierle, M.D., who served as head of the Department from 1929 to 1964. The facility was financed by private gifts to the hospital by former students of Dr. Lierle.

NEBRASKA MEETING . . . Dates of the 40th annual postgraduate assembly of the Omaha Mid-West Clinical Society are October 30, 31 and November 1. Meeting will be at the Hilton Hotel in Omaha.

SUICIDE STUDY . . . In a State Department of Health study of approximately 2,000 suicides, possible suicides or unsuccessful suicide attempts, firearms accounted for nearly half the total; hanging, strangulation and suffocation were involved with 21 per cent; car exhaust fumes, 12 per cent; drugs and poisons, 11 per cent. Males accounted for 492 suicides in the two-year study, females 165.

PHYSICIANS LIABLE . . . Any member of a profession who has one or more employees is subject to the provisions of the Occupational Safety and Health Act of 1970 which became effective early this year. Originally considered applicable primarily to business and industry, more recent interpretations have included professional practitioners. Violators of OSHA can be penalized up to $1,000 for each serious violation.

HMO MEETING . . . First meeting of the Legislative HMO Study Committee occurred July 13. The joint House-Senate Committee was authorized by the 1972 Iowa General Assembly and is chaired by Representative Bart Schweiger of Waterloo.

OPERATION MEDIHC . . . Now registered with the Operation MEDIHC Program are approximately 150 former servicemen and women with military training and experience in the health field. This placement program is administered by the Information and Education Division of the Iowa State Department of Health. Names of the registrants and their credentials are available on written or telephone (515/281-5771) request.

INSURANCE DATA . . . 2,376,000 Iowans under 65 have insurance protection against hospital expense, according to the recently released 1971-72 Source Book of Health Insurance Data. The reference book, compiled by the Health Insurance Institute, reports that 2,206,000 Iowans have surgical expense coverage and 1,981,000 have regular medical expense protection. In 1969, the report notes, $181,082,000 was paid in health insurance benefits in Iowa; of this, $111, 393,000 was paid by insurance companies and $69,689,000 by Blue Cross/Blue Shield.

Pathology Capsules

by MICHAEL L. O'CONNOR, M.D.

CEREBROSPINAL FLUID ELECTROPHORESIS IN MS

CEREBROSPINAL FLUID ELECTROPHORESIS is one of the few laboratory procedures useful in the diagnosis of multiple sclerosis and related demyelinating diseases of the central nervous system. An elevation of the gamma globulin percentage of CSF total protein is highly suggestive of such conditions.[1] Techniques of varying sophistication have been utilized to measure directly the gamma globulin component of CSF, but probably none of these is more accurate, specific, or technically easier than cellulose acetate electrophoresis.

Following preliminary concentration of the CSF, the electrophoresis procedure and subsequent densitometric quantiation can be performed on the same equipment as used for serum protein electrophoresis. The CSF can be concentrated conveniently on a very inexpensive vacuum dialysis apparatus.[2] With careful technique, as little as 1 ml CSF is required for the procedure, plus approximatly 0.5 ml for assay for CSF total protein. Recently, a method utilizing cellulose acetate electrophoresis of microliter quantities of unconcentrated CSF has been published.[3]

Table 1 gives the normal ranges for the CSF protein fractions, as percentages of the total protein.[4] These ranges were determined by electrophoresis of retrospectively normal CSF samples and are essentially identical to those observed by analysis of several hundred consecutive unselected CSF specimens submitted to the pathology laboratory of University Hospitals of Cleveland.[5] In this latter series, the percentage distribution of the gamma globulin component was similar for CSF of either normal or elevated total protein concentration.

In contrast to the situation for serum protein, the interpretation of the CSF electrophoresis pattern is generally made on the basis of the percentage distribution, rather than the absolute quantity, of the various fractions.

TABLE 1

NORMAL RANGES OF CSF PROTEIN FRACTIONS BY CELLULOSE ACETATE ELECTROPHORESIS

Fraction	% of Total
pre-albumin	2-7
albumin	52-72
alpha-1-globulin	1-7
alpha-2-globulin	3-12
beta globulin	7-23
gamma globulin	3-13

In the majority of cases of multiple sclerosis, the CSF total protein is either normal or only moderately elevated. The CSF electrophoretic pattern should be considered suggestive of the diagnosis if either:

1) CSF gamma globulin is greater than 14% of total CSF protein;
2) CSF gamma globulin is greater than CSF beta globulin; or
3) CSF gamma globulin is greater than 8 mg/dl

Of these, the third criterion is the least reliable, especially if the CSF total protein concentration is elevated. Other disease states, both systemic and neurologic, may be associated with abnormal CSF electrophoretic patterns of varying specificity.[3, 6] In general, CSF protein electrophoresis is of greatest utility in the differential diagnosis of central nervous system disease with normal or moderately elevated CSF total protein concentration.

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This series of review articles is provided by the Iowa Association of Pathologists. This discussion has been prepared by Michael L. O'Connor, M.D. Dr. O'Connor is in the Department of Pathology at The U. of I. College of Medicine.

State Department of Health

ARNOLD M. REEVE, M.D., M.P.H., Commissioner

TREATMENT OF PERSONS ADDICTED TO OR DEPENDENT ON DRUGS (JANUARY 1-MARCH 31, 1972)

Chapter 224A of the Code of Iowa, 1971, requires all physicians and hospitals to report information regarding the treatment of persons addicted to or dependent upon drugs. Information on this new law was previously published in the November and December 1970 issues of the JOURNAL OF THE IOWA MEDICAL SOCIETY. This report is for the period January 1 through March 31, 1972.

All hospitals and practicing physicians in the State of Iowa were furnished forms for the submission of the information as required by the law. This constituted a mailing of approximately 3,200 forms. Forty-eight forms with responses were received, 22 from hospitals and 26 from physicians. Two hundred and eleven forms were returned without entry. This is a return rate of 0.8 per cent of the total mailing. Negative reports are not required by the law.

A total of 368 persons were reported as having been treated for drug addiction or dependency. Two hundred and thirty-six were male and 132 were female. Three hundred and twenty were Caucasian, 48 were of other races.

Information reported as to the drugs to which these persons are addicted or dependent is included in Table 1. Heroin is the most commonly reported abused drug, 110 persons were reported to be receiving treatment for addiction or dependence to it. Many of these are persons who have been under treatment in previous quarters and the treatment is being continued. Thus the number does not indicate the new cases coming under treatment this quarter.

Of the 368 treated, 116 had maintained employment and 202 had not. The question about employment was not answered on 50 responses. There were 74 persons reported as having received previ-

TABLE 1

Acid	6	Meperidine	1
Alcohol	6	Meprobamate	1
Ambar	1	Mescaline	39
Amphetamine	35	Methadrene	5
Amytol	2	Methadone	5
ASA	4	Mixed Drugs	12
Barbiturates	31	Morphine	5
Benedrine	1	Narcotics	5
Bennies	1	Nebutal	3
Benzedrine	1	Noludar	2
Bromides	1	Nytol	1
Butisol	1	Obedrin LA	1
Carbrital	2	Opiates	2
Cocaine	11	Pep Pills	1
Codeine	11	Percodan	3
Dalmane	1	Pertufrane	1
Darvon	6	Peyote	2
Demerol	2	Phenobarbital	3
Dexamyl	1	Placidyl	3
Dexedrine	3	Poly-drugs	11
Dilaudid	1	Preludin	3
DMT	1	Psilacybin	3
Doriden	6	Psychedelics	1
Downers	3	Psycho Stimulant	7
Elavil	1	Seconal	6
Equanil	1	Sominex	1
Furanal	1	Speed	32
Gantrisin	1	Talwin	4
Glue	2	THC	2
Haldol	1	Thorazine	3
Hallucinogens	18	Tofranil	3
Hashish	15	Tranquilizer	3
Heroin	110	Tuinal	4
Hydromorphine	1	Unknown	3
Hypnotics	2	Uppers	1
Librium	2	Valium	5
LSD	85	Vanquish	1
Marijuana	95	Vistaril	1
Mellaril	4	White Crose	2

TABLE 2

REPORTED PATIENTS BY RACE AND SEX BY AGE GROUP

	Total	Under 10	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75 and Over	Not Std.
All Races																	
Male	236	1	3	61	100	22	10	13	7	5	3	2	2	1	4	2	
Female	132	1		37	32	10	7	8	8	6	2	2	4	4	3	3	5
N.S.																	
Total	368	2	3	98	132	32	17	21	15	11	5	4	6	5	7	5	5
White																	
Male	204	1	3	59	91	15	4	7	5	5	3	2	2	1	4	2	
Female	116	1		35	25	8	5	6	7	6	2	2	4	4	3	3	5
N.S.																	
Total	320	2	3	94	116	23	9	13	12	11	5	4	6	5	7	5	5
Non-white																	
Male	32			2	9	7	6	6	2								
Female	16			2	7	2	2	2	1								
N.S.																	
Total	48			4	16	9	8	8	3								
Not stated																	
Male																	
Female																	
N.S.																	
Total																	

ous rehabilitation and 266 who had not received such rehabilitation. This question was not answered on 28 responses.

There were 177 persons reported as having received previous treatment and 182 who had not received previous treatment. This question was not answered on 9 responses.

Public assistance was being received by 75 of the 368 cases reported while no public assistance was being received by 281. There was no response to this question on 12 of the replies. A breakdown of the type of public assistance received indicates that 22 individuals were receiving ADC, 33 were recipients of county aid, 7 were receiving state public assistance and 3 were beneficiaries of the Social Security Administration. One was a recipient of G.R.A. and 1 constituted a combination of the above. Seven reports did not state the type of public assistance received. This question was not answered on 12 responses.

Of the 368 individuals reported, 207 were treated as inpatients and 159 were treated as outpatients. Where double answers were provided, the patients have been counted as inpatients only. This question was not answered on 2 responses.

Age breakdown of the data indicates that 62.5 per cent of the individuals reported as receiving treatment for addiction or dependency were between the ages of 15 and 24. A breakdown by ages is shown in Table 2.

County of residence is shown in Table 3.

TABLE 3

COUNTY OF RESIDENCE

Adair	1	Keokuk	1
Allamakee	1	Kossuth	1
Black Hawk	31	Lee	2
Buchanan	9	Linn	76
Buena Vista	1	Lucas	1
Calhoun	1	Lyon	1
Cass	3	Mahaska	2
Cedar	2	Marion	9
Cerro Gordo	2	Marshall	5
Cherokee	5	Monona	1
Chickasaw	1	Muscatine	7
Clay	1	O'Brien	2
Clinton	12	Osceola	1
Crawford	2	Palo Alto	1
Dallas	1	Plymouth	3
Delaware	3	Polk	48
Des Moines	4	Pottawattamie	5
Dickinson	2	Scott	23
Dubuque	2	Sioux	2
Grundy	1	Story	13
Hardin	2	Taylor	1
Henry	2	Wapello	9
Howard	3	Washington	1
Ida	2	Wayne	2
Iowa	1	Winnebago	1
Jasper	1	Woodbury	12
Jefferson	3	Wright	1
Johnson	25	Out of State	9
Jones	1	Not Stated	3

Morbidity Report for June 1972

Diseases	June 1972	1972 to Date	1971 to Date	Most June Cases Reported From These Counties
Brucellosis	3	22	7	Cherokee
Chickenpox	174	6397	5310	Des Moines, Polk
Conjunctivitis	15	638	346	Johnson, Linn, Marshall, Shelby
Gastrointestinal viral infection	71	4216	5142	Johnson
German measles	14	377	652	Johnson, Marshall
Gonorrhea	457	3122	2597	Polk
Hepatitis				
Infectious	21	160	167	Polk, Woodbury
Serum	11	38	9	Polk
Histoplasmosis	5	18	11	Lee
Impetigo	5	220	206	Dubuque
Infectious mononucleosis	47	561	714	Johnson
Measles	6	703	2198	Dubuque
Meningitis				
H. influenza	1	7	5	Scott
type unspecified	1	11	6	Scott
Meningo-encephalitis	1	3	1	Muscatine
Mumps	88	5635	2848	Dubuque
Pneumonia	59	491	490	Scott
Rabies in Animals	73	195	136	Scattered
Rheumatic fever	1	23	39	Carroll
Salmonellosis				
S. bredeney	1	1	0	Polk
S. enteritidis	4	10	5	Lee
S. heidelberg	1	9	0	Woodbury
S. infantis	3	6	0	Henry
S. java	1	1	1	Tama
S. javiana	1	1	0	Linn
S. kottbus	2	3	0	Dubuque
S. newport	1	8	7	Woodbury
S. typhimurium	11	27	14	Polk
Shigellosis				
S. flexneri	1	5	1	Polk
S. sonnei	35	146	37	Polk
Streptococcal infections	275	4327	4272	Johnson
Syphilis	35	241	323	Polk
Tuberculosis, active	8	48	64	Polk
Whooping cough	4	30	17	Polk



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Journal Book Shelf

BOOK REVIEWS

IDENTIFICATION OF ASTHMA, Ciba Foundation Study Group No. 38, ed. by *Ruth Porter* and *Joan Birch*. (London, Churchill Livingstone, 1971).

This is a small but very sophisticated book discussing asthma and other related lung diseases. It attempts to differentiate the complex pulmonary problems related to asthma, bronchitis and emphysema. The chapters are related to pathology, physiology and immunologic mechanisms, release of chemical mediators, pharmacology of asthma and the clinical aspects. This is an in depth discussion of the subject and directed to the physician primarily interested in chest disease. There are 26 discussants with world-wide reputations in the lung field. A great majority are from England and only four are from the United States. This book can be recommended as a most informative book dealing with a very complex subject.—*Joel D. Teigland*, M.D.

TEAMWORK FOR WORLD HEALTH, Ciba Foundation Symposium, ed. by *Gordon Wolstenholme* and *Maeve O'Connor*. (London, J. & A. Churchill, 1971).

The Ciba Foundation opened in 1949 to promote international cooperation in medical and chemical research. London was chosen as its site for reasons dictated by the special advantages of English charitable trust law as well as those of language and geography. Several previous symposia have concerned rather esoteric subjects such as "Hemopoiesis," "Regulation of Cell Metabolism," "Carcinogenesis," etc.

The present work is dedicated to a larger, more popular problem which is "Teamwork for World Health." There are 27 contributors, 3 from the U.S.A. Subjects include: Responses to Emergencies both National and International by the Red Cross; Health Corps in Iran; Example of Integrated Approach to Health Care; Health Service in People's China; and Paramedical Paradoxes. The basic thought is that health is most important in our world:

When health is absent
Wisdom cannot reveal itself
Art cannot manifest
Strength cannot fight
Wealth becomes useless
Intelligence cannot be applied.

HEROPHILUS c. 300 B.C.

Most of the book is dedicated to the "underdeveloped countries." There are items pertinent to our practice in the United States. For example, 40 years ago our medical schools moved toward a more scientific outlook. This change has added many benefits to our health situation. It has only gradually become evident that this change has been siphoning off considerable activity from the delivery of health care to groups and individuals. The unplanned approach to our medical care has led to such major problems as markedly fragmented health systems, increasing specialization resulting in fewer health professionals per general population needs, and spiraling costs due to ever increasing technological depth and complexity. Regional health care programs are one obvious answer to the dearth of medicine in our rural areas. This problem is similar all over the world. We practicing physicians are, of course, violently against such programs because we want to maintain our own individuality but we are going to have to "give" someplace, at sometime, in order to provide the care that our people should have. In other countries this problem has been solved by compulsory, nationalization of medical care. In a country such as ours where freedom of movement is considered one of our prime rights, the problem of solving the rural population's needs may be more difficult than these other nations where the populus is regimented. We practicing physicians tend to want to "put our heads in the sand" and hope the problem will go away. However, it seems obvious that the problem even in our own country will become more serious as the years go on.

The book should be an eye-opener to practicing physicians. It should be of interest to the philosophers and socially oriented doctors among us, although the obvious solutions to health programs in this country and in the world will eventually be painful for us to "stomach."—*D. A. Glomset*, M.D.

MENTAL HEALTH PROGRAM REPORTS—5, ed. by *Julius Segal*, Ph.D. (Washington, D. C., Superintendent of Documents, U. S. Government Printing Office, 1971, $1.75).

This is the fifth volume in the National Institute of Mental Health series dealing with a broad range of investigations carried out under NIMH auspices. This provides an excellent sampling of research projects being conducted in this country, though it by no means should be construed that these are the only, or the best ones. What is significant is the fact that the Institute supports research projects of a highly diverse, but always relevant nature. The object of study is human behavior, individual and collective. The parameters may be genetic, physiologic, psychologic, social or anthropological.

In this volume, the broad spectrum of subject mat-

(Please turn to page 444)

Educationally Speaking

by RICHARD M. CAPLAN, M.D.

MEDICAL CARE EVALUATION STUDIES

A RECENT ARTICLE in JAMA (220:383-387, 1972) reports we will soon be seeing revised Medicare regulations dealing with utilization review. As I understand the article, the utilization review process must be expanded from simple length-of-stay evaluation to include more effort in "medical care evaluation." Individual hospitals and their respective committees will theoretically have many options since "virtually anything related to patient care—medical or administrative—can be a valid subject for a medical care evaluation study." But it seems that ignoring this requirement will not be one of the options!

What has a requirement for such studies in your hospital got to do with continuing medical education? A great deal, in my opinion. For if we begin to analyze in some detail what we are doing in patient care, we may possibly find ourselves short of perfection (a safe assumption, don't you think?) or even short of our self-set standards. If we fall short of a reasonable goal in giving care—and of course nobody sets "perfection" as a "reasonable goal"—then it means we can be doing better. But to do better is to do differently, and that means we've got to have some new information and/or skills and/or motivation to start using our full complement of knowledge and skills.

If any kind of deficiency in care can be pinpointed, then education is the remedy. And the more precise the pin-pointing, the more effective will our educational efforts become. And how do we pin-point deficits in care? Through medical care evaluation studies in each hospital, of course.

It seems to me The University of Iowa's College of Medicine has a responsibility not only to provide practitioners with the expert faculty personnel and information content needed, but it must first try to assist local physicians and hospitals to learn the *process* of determining their own educational needs. The basic techniques are not so unfathomable, but none of us has much experience in carrying out the kind of studies referred to, even though models are available. Since such efforts will be required of us in the future, I'm willing to accept the challenge in behalf of a more enlightened medical practice and superior health care for patients. I'm sure I'm not alone.

A first instructional step will be available in a "Workshop on Medical Care Evaluation Studies" to take place in the delightful retreat atmosphere of The University of Iowa's Lakeside Laboratories at Lake Okoboji on the weekend of September 15. Watch for a mailing that will give the details.

Meanwhile, all hospital staff officers, members of utilization review committees, and hospital administrators ought to read that JAMA article. If I can be of help after that, let me know.

Continuing Education Courses & Conferences

Please call or write Office of Continuing Medical Education, College of Medicine, for further information on these programs. Telephone 319-353-5763.

Sept. 13-14	Conference on Pediatrics *Iowa Chapter of the American Academy of Pediatrics
Sept. 15-16	Urology Postgraduate Conference *Iowa Urological Society
Sept. 15-17	Medical Care Evaluation Studies in Community Hospitals (Workshop-retreat at Lake Okoboji)
Sept. 19-20	Instrumentation in Clinical Chemistry (State Hygienic Laboratory)
Sept. 22-23	*Iowa Society of Anesthesiologists
Sept. 22-23	*Iowa Academy of Surgeons

*Society meeting held in conjunction with postgraduate course.

Unless otherwise specified all courses and conferences are held at The U. of I. College of Medicine, Iowa City.

University Drug Letter

by JOHN L. LACH, Ph.D.

SOME FACTORS AFFECTING BIOAVAILABILITY OF DRUG PRODUCTS

The assumption that comparable pharmaceutical dosage forms meeting present manufacturing and compendial requirements produce comparable or equivalent therapeutic responses certainly needs to be reexamined in light of recent clinical and laboratory experiences. The clinical efficacy of a drug is often modified by various factors including the rate and extent of absorption of the active moiety. There is now abundant evidence that the absorption characteristics of a drug product can be markedly affected by the materials and methods used in its manufacture.[1] These formulation effects can be the result of such variables as type and amount of "inert" excipients or fillers, as well as of drug particle size, polymorphic form, salt form, solvates and/or hydrates, pH and dosage form (tablet, capsule, suspension, etc.). Unfortunately such *in vitro* procedures as the USP Disintegration and Dissolution Test do not, in themselves, assure biological availability of a particular dosage form.

It is well known that the preparation of pharmaceutical dosage forms involve the use of so-called "inert" ingredients. These excipients or adjuvant materials are used as binding agents, disintegrators, lubricants, diluents, suspending agents, solubilizers or coating materials. Such excipient materials are not only necessary in a dosage form from a manufacturing point of view but also for the preparation of a quality drug product. Here reference is made of course, to physical and chemical stability, palatability and therapeutic efficacy of the finished dosage form.

Since these adjuvants often constitute a considerable portion of a solid dosage form such as tablets or capsules, there is good reason to believe that they might influence drug stability, drug availability and drug absorption in those instances where drug-excipient interactions occur. The effects that excipients may cause when incorporated into pharmaceutical dosage forms may include changes in the nature and intensity of biological activity by either physical or chemical interaction with the drug to form a surface complex, modification of the physical state, particle size and/or surface area of the drug available to the absorption sites, as well as changes in the stability of the active ingredients resulting in toxic manifestations.

It is of interest to note that although this problem of biological variations and perhaps toxicity due to formulation factors in comparable dosage forms is now being recognized, there is unfortunately still some feeling by a segment of those in the health professions that this problem is not an extensive one, and that it is limited to a small group or class of drugs being used. Space does not permit a discussion of the literature reports dealing with the therapeutic agents involved. However, some of the more important ones should be mentioned, including chloramphenicol, griseofulvin, tetracycline, bishydroxycoumarin, tolbutamide, diphenylhydantoin, erythromycin, prednisone, spironolactone, nitrofurantoin, ampicillin, penicillin G, sulfa drugs and oxytetracycline. Recently, the FDA added to this list an additional 14 drugs which they considered suspect in respect to differences in bioavailability due to formulation variables. These include aminophylline, chlortetracycline, diethylstilbestrol, ferrous sulfate, hydrocortisone, isoniazid, meprobamate, sodium para-aminosalicylate, potassium penicillin V, quinidine, reserpine, sodium secobarbital, thyroid and sodium warfarin. Certainly, no one can argue that the drugs mentioned do not represent a significant portion of all currently official drugs.

A full discussion of all of the drugs mentioned with respect to the biological variations observed in the various products studied is not possible here; however, several should be mentioned in order that this subject be better identified.

The effect of food, dicalcium phosphate and other metallic salts in depressing tetracycline absorption is well known and documented. Prior to

Dr. Lach is associated with the College of Pharmacy at The University of Iowa. This discussion appeared initially in the February, 1972 Issue of DRUG LETTER, a monthly intramural publication of University Hospitals prepared jointly by the Pharmacy Department and the Clinical Pharmacology Committee.

the time that this effect was recognized, interchanging brands of tetracycline made large differences in blood levels and therapeutic effects obtained. Recent FDA studies[2] have shown that 250 mg capsules of tetracycline from nine different suppliers, when administered to a group of volunteers, produced significant variations in blood level concentration of this antibiotic. Other studies by this same governmental agency and other investigators concerning these variations in therapeutic responses did point out that the bioavailability of this and other related antibiotics is indeed subject to the effect of formulation factors. What are these formulation factors?

Since the excipient or fillers used in the manufacture of dosage forms may comprise a significant portion of the total dose it was our feeling that these so-called "inert" materials could be, in part, responsible for these observed biological variations and for the chemical instability of the therapeutic agent itself.

Using diffuse reflectance spectroscopy (DRS) we have shown this to be the case.[3] For example, tetracycline as well as other chemotherapeutic agents can interact very strongly with the surface of some of these excipients. The spectral changes, both in the ultraviolet and visible region of the spectrum, as reflected by the large bathochromic shifts, intensity changes and in the appearance and disappearance of absorption peaks as compared to that of the control samples, suggests that the nature and degree of these surface interactions depends upon the type of drug and excipient present. Our studies show that the desorption or dissolution aspects of these surface adsorbed drugs also indicate that the rates of desorption (increase or decrease) depend on the type of excipient present. These differences in the rate of desorption or drug dissolution due to such drug-excipient interactions (chelation, physical adsorption or chemisorption) may certainly account for the therapeutic variations reported for comparable dosage forms.

Another illustration of the effect of formulation factors on the therapeutic efficacy of a drug deals with the drug bishydroxycoumarin (BHC) or dicoumarol.[4, 5] Significant clinical changes seen as a result of formulation variation did suggest, in this study, that it is quite likely that no two manufacturers' brands of dicoumarol tablets will act alike in therapeutic activity.

Again our own studies dealing with BHC-excipient interactions using diffuse reflectance spectroscopy did indicate that this drug undergoes strong surface interactions with these various filler-type materials. The desorption or dissolution aspects of these BHC-excipient interaction products showed that the increase or decrease in the rates seen as compared to that of the pure drug are functions of the type and amount of excipient present. In a joint study with Drs. L. Fisher and H. Williamson of the Department of Pharmacology, College of Medicine, The University of Iowa, dealing with the effect of these excipients on the absorption rates as seen in the serum level concentration in dogs, it was shown that the amount of BHC absorbed was related to the type and amount of excipient present. Of particular interest here were the significant increases in BHC plasma levels when the drug was administered with magnesium excipients such as magnesium carbonate, magnesium oxide and magnesium hydroxide. Peak plasma levels were increased as much as 80% compared to controls. The time for peak plasma concentrations to be reached was shortened from 8-12 hours after control doses to 1-4 hours when these BHC-magnesium ion products were administered. There was also a corresponding 60% increase in the area under the BHC plasma level curves. A significant increase in the pharmacological action of BHC was observed, with the prothrombin time being increased by approximately 50% over control doses. Significant serum level concentration variations were also seen in a study of three commercial dicoumarol tablets.

With respect to these excipient effects it is interesting to note that the clinical toxicological implications on patient BHC requirements could be significant when antacids containing magnesium ions are also administered.

Comparable results were obtained in an *in vivo* study using the rat as the test animal with respect to the effect of various filler materials used in dosage forms on the natriuretic and diuretic action of furosemide (Lasix). Based on this data it appears that this diuretic agent would also be a candidate with respect to *in vivo* biological variations in activity due to formulation factors.

Since many of our drug products contain not one but several therapeutic agents, there is a good possibility that during the manufacturing process or just under storage conditions, drug-drug interactions can occur to form molecular complexes in addition to drug-excipient interactions just discussed. Such drug-drug complexes could also account for the biological variations reported for comparable drug products. In a recent study[6] we have shown this to be the case involving products containing the therapeutic agents theophylline, phenobarbital and ephedrine. Significant theophylline serum level differences were observed in a number of patients given three different products containing these medicinal agents. These differences were shown to be due to the various formulation factors involved in the preparation of these products and to the presence of a theophylline-phenobarbital complex.

Although a thorough literature review of the biological differences observed in comparable dosage forms is not possible here, the examples cited illustrate this problem. Until our regulatory agencies require all manufacturers of pharmaceutical dosage forms to substantiate their product claims

(Please turn to page 446)

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JOURNAL BOOK SHELF

(Continued from page 439)

ter offers something for everybody. Of special interest is a section dealing with "Biofeedback." Physicians and laymen as well are becoming increasingly aware of movements which seek to enable people to gain "peace of mind" through a variety of philosophic, contemplative, hypnotic or physical influences. The scientific study of the induced alterations in states of consciousness and in facilitating voluntary control of autonomic functions is potentially of very great significance. All physicians would do well to be familiar with developments in this area.—*Sidney L. Sands*, M.D.

CANCER DIAGNOSIS IN CHILDREN, by *L. D. Samuels*, M.D. (Cleveland, CRC Press, 1972, $25.00).

The book is a short guide of 130 pages dedicated mainly to the medical student or general practitioner not familiar with the modern diagnostic armamentarium. Particular emphasis is given to pediatric nuclear medicine with half the book devoted to this subject. The radiographic diagnosis treated in a different chapter is a brief description of the possible techniques ending with the presentation of nine cases. Unfortunately, the illustrations are not of as high quality as one might desire for a clear visualization of the radiographic signs. The whole book emphasizes the description of different techniques available in the different diagnostic sections. The final appendix is perhaps the most useful chapter for the student to better organize the evaluation and follow-up of a patient with cancer. The book is not recommended for radiologists or pediatricians.—*Enrique Cubillo, M.D.*

BLOOD, by *Leo Vroman*, Ph.D. (Garden City, N. Y., Doubleday & Company, Inc., 1971, $1.95).

This is a book which I read in its paper back form and which reads similarly to a paper back novel. However, its casual approach to a description of the human blood is not at all naive or inaccurate. The author is, firstly, a man intrigued by the subject; secondly, he is academically prepared to write about it by his attainment of an animal physiology Ph.D. (Utrecht University) and thirdly, he writes in a flowing manner that entertains physician, paramedical personnel or any layman reader of medical topics. Excerpts of this monologue will not be quoted in the lists of references in medical journal articles but the reader will understand blood manifold better after spending the five hours it takes to read and digest it.—*Thomas D. Ghrist*, M.D.

THE PEDIATRIC NURSE PRACTITIONER by *Fernando J. deCastro*, M.D., and *Ursula T. Rolfe*, M.D. (St. Louis, C. V. Mosby Company, 1972, $6.50).

This small book is intended for instruction of nurses in the ancillary position of pediatric nurse practitioner. It consists of three sections. The first consideration is to the appraisal of the child—history, examination, laboratory procedures, screening tests and such other data gathering as may be indicated. Then the manual leads into a very superficial overview of clinical problems encountered in a pediatrics practice. The last section deals with social problems of health care in our modern society.

Though brief the manual should serve well in training the nurse practitioner. The subjects would require considerable broadening or expansion through lectures or on-the-job experience.—*M. E. Alberts*, M.D.

PEDIATRIC THERAPY, Fourth Edition, ed. by *Harry C. Shirkey*, M.D. (St. Louis, C. V. Mosby Company, 1971, $34.50).

The first edition of this work appeared in 1964 and it is now in its fourth edition. It has retained its position as a valuable book in the pediatrician's active library. All aspects of the therapy of infants and children are sufficiently covered to provide the physician with a ready reference to common as well as knotty therapeutic challenges. The numerous authors combine to make the content not only valuable but enjoyable reading. Suffice it to say, here is a good book in its fourth edition which should be at the disposal of any physician treating children.—*M. E. Alberts*, M.D.

Books Received

LACTOGENIC HORMONES, Ciba Foundation Symposium, ed. by *G. E. W. Wolstenholme*, and *Julie Knight*. Edinburgh and London, Churchill Livingstone, 1972, $5.00.

NEUROHYPOPHYSIAL HORMONES, Ciba Foundation Study Group No. 39, ed. by *G. E. W. Wolstenholme*, and *Joan Birch*. Edinburgh and London, Churchill Livingstone, 1971.

PERSONALITY AND SCIENCE, Ciba Foundation Blueprint, ed. by *I. T. Ramsey* and *Ruth Porter*. Edinburgh and London, Churchill and Livingstone, 1971.

MENTAL HEALTH PROGRAM REPORTS—5, ed. by *Julius Segal*, Ph.D. Washington, D. C., Superintendent of Documents, U. S. Government Printing Office, 1971, $1.75.

PROFESSIONAL USES OF ADHESIVE TAPE, Third Edition. New Brunswick, New Jersey, Johnson & Johnson, 1972.

A DECADE OF PROGRESS, The United States Army Medical Department 1959-1969, by Lieutenant General *Hal B. Jennings, Jr.* Washington, D. C., Superintendent of Documents, U. S. Government Printing Office, $2.25.

TEXTBOOK FOR THE ORTHOPAEDIC ASSISTANT by *F. Richard Schneider*, M.D. St. Louis, C. V. Mosby Company, 1972, $10.75.

CANCER DIAGNOSIS IN CHILDREN by *L. D. Samuels*, M.D. Cleveland, CRC Press, 1972, $25.00.

DIABETES MELLITUS: DIAGNOSIS AND TREATMENT, Vol. III, ed. by *Stefan S. Fajans*, M.D., and *Karl E. Sussman*, M.D. New York, American Diabetes Association, 1971, $5.75.

THE CARE OF MINOR HAND INJURIES, Second Edition, ed. by *Adrian E. Flatt*, M.D. St. Louis, C. V. Mosby Company, 1972, $21.50.

REVIEW OF MEDICAL MICROBIOLOGY by *Ernest Jowetz*, M.D., *Joseph L. Melnick*, Ph.D., and *Edw. A. Adelberg*, Ph.D. Los Altos, California, Lange Medical Publications, 1972, $8.00.

MENTAL HEALTH TRAINING AND PUBLIC HEALTH MANPOWER by *Stephen E. Goldston*, Ed.D., M.S.P.H., and *Elena Padilla*, Ph.D. Washington, D. C., Superintendent of Documents, U. S. Government Printing Office, 1971, $2.75.

GENERAL UROLOGY, Seventh Edition, ed. by *Donald R. Smith*, M.D. Los Altos, California, Lange Medical Publications, 1972, $8.50.

CHEMICAL AND BIOLOGICAL ASPECTS OF DRUG DEPENDENCE, ed. by *S. J. Mule*, Ph.D., and *Henry Brill*, M.D. Cleveland, Ohio, Chemical Rubber Company Press, 1972, $35.00.

BONE TUMORS, Fourth Edition, by *Louis Lichtenstein*, M.D. St. Louis, C. V. Mosby Company, 1972, $24.50.

THE TRUTH ABOUT VITAMIN E by *Martin Ebon*. New York, Bantam Books, 1972, $1.25.

PATHOLOGY OF CEREBRAL BLOOD VESSELS by *William E. Stehbens*, M.D. St. Louis, C. V. Mosby Company, 1972, $44.50.

Medical Assistants

by TENORA MEYER

The Fifth Season— Five Senses Potpourri

The "Fifth Season" was observed in Cedar Rapids by medical assistants from Iowa and surrounding states May 19, 20, and 21. Theme for the annual convention included the explanation that "Life is the sum of all seasons with which it is filled—growing, learning, working and enjoying. In Cedar Rapids there was a fifth season—time to enjoy the other four."

Friday workshops commenced at 2 p.m. and featured the following speakers: Dr. Montague Lawrence—Cardiovascular; Dr. Thomas Stark—Pediatric-Urology; and Dr. W. G. Moershel—Psychiatry.

The House of Delegates met at 8 a.m. Saturday and elected the following officers:

President: **Mrs. Marcine Sanders,** Davenport, employed by Drs. Larson and Motto.

President-elect: **Mrs. Sally Gesink,** Sioux City, employed by Drs. Kivlighn and Atash.

Vice President: **Mrs. Wilma Heller,** Cedar Rapids, employed by Drs. Bausch and Scholl.

Secretary: **Mrs. Sherry Chidester,** Des Moines, employed by Dr. Henry Gurau.

Treasurer: **Miss Phyllis Weatherman,** Mason City, Office of Independent Medical Surgical group.

Delegates were elected to the National Convention in Phoenix, Arizona, October 17-21, 1972.

The General Assembly convened at 10 a.m. Dr. Ruth Siemer (Ph.D.), Coe College, spoke on "Population and Its Relation to Environment." She recommended the book, "The Closing Circle," by Barry Commoner, as an information resource on ecology. She listed the five contributing factors to water pollution as sewage, siltation, pesticides, monocultures and nitrates-sulfates.

The Honorable Warren Rees, Justice of the Supreme Court of Iowa, discussed "Ecology and the Law." He reported the United States has 6% of the world's population and uses 50% of its resources. He declared that our population will double in 33 years.

At the Saturday luncheon, Mr. Robert Wray, General Service Manager, Iowa National Mutual Insurance Company, Cedar Rapids, spoke on "Potpourri."

After the luncheon a film was shown on the Duane Arnold Energy Center. The group then toured the plant which is located at Palo, on the Cedar River near Cedar Rapids. This nuclear power plant is under construction. Its estimated cost is $187,000,000 including substation and transmission lines.

Mrs. Jeanne Green, AAMA National Trustee from Davenport, installed the new officers at the Saturday banquet. Following the banquet the group was entertained by the "Vigortones" and a Dixieland band—"A Night in New Orleans."

On Sunday morning a Rap session was held, with Mrs. Bettye Fisher, AAMA representative, as moderator. The various convention activities were reviewed and the group was requested to recall the pertinent facts presented at the various sessions Friday and Saturday.

The convention chairman was Mrs. Marian Little with Mrs. Sally Mead as co-chairman. The 1973 state convention will be at the Holiday Inn, Des Moines, Iowa on May 6, 7, 8.

• • •

Nineteen new chapters of AAMA have been organized from November 1, 1971 through April 30, 1972. If you are interested in joining the AAMA and do not have a chapter in your locality, write Mrs. Marcine Sanders, 317 West 31st Street, Davenport, Iowa 52803, for information on organizing a chapter or attending a nearby chapter.

This page is prepared for and by Iowa Chapter, American Association of Medical Assistants. Material is compiled by Miss Tenora Meyer.

RADIOLOGY WINDOW

CASE NO. 4

(Continued from page 418)

Chronic obstruction of the superior mesenteric artery is usually of arteriosclerotic origin and is most often localized in the first 1 to 2 cm of the artery. The stenosis is best visualized at angiography in the lateral projection (Figure 2). Obstruction of the peripheral branches is more rare and may also produce intestinal ischemia with malabsorption. When the obstruction is in the peripheral branches, selective arteriography of the superior mesenteric artery is indicated.



Figure 2. Lateral abdominal aortogram reveals the presence of a very significant stenosis of the superior mesenteric artery producing the clinical syndrome of abdominal angina and the angiographic feature of a very large inferior mesenteric artery feeding the territory normally fed by the superior mesenteric artery.

UNIVERSITY DRUG LETTER

(Continued from page 442)

with some bioavailability studies one cannot assume equivalency in comparable dosage forms.

Based upon the information presented in the report and in the literature it is evident that differences in the formulation of drug products may affect the biological availability of a drug. For some drugs these differences may be therapeutically important. The Pharmacy Department and the Clinical Pharmacology Committee of the University of Iowa Hospitals and Clinics with the aid of consultants in medicine, pharmacology and pharmacy consider the biological variability that may exist between different brands of the same chemical entity for all medications that are stocked at the University of Iowa Hospitals and Clinics. In some cases these differences have resulted in restricting the source of drugs (which are manufactured by various pharmaceutical firms) to one specific company, e.g. only Parke-Davis brand of chloramphenicol is purchased by the Pharmacy Department. In other instances, differences in bioavailability between products, e.g. meprobamate, have not been felt to be of therapeutic importance and therefore more than one brand of the drug is considered suitable for use in this hospital.

No doubt more drugs will be shown to exhibit differences in bioavailability. These differences, if they are therapeutically important, must be considered in the choice of brand of drug which will be stocked if the patient is to receive the best therapy.

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About IOWA Physicians

Dr. Oscar H. Banton, longtime Charles City physician, retired in June from active practice. A 1912 graduate of The U. of I. College of Medicine, Dr. Banton interned at Mt. Sinai, New York and practiced in Nora Springs from 1914 to 1916. During World War I Dr. Banton served overseas with the British Army. Following military service he established a general practice in Charles City and has been there since. Dr. Banton is a member of the IMS Fifty Year Club.

Dr. David M. Tan Creti, a native of Carroll, has joined **Dr. Donald J. Soll** in the practice of medicine at the Denison Medical Clinic. A 1969 graduate of the Johns Hopkins Medical School, Dr. Tan Creti interned at The U. of I. College of Medicine. For the past two years he has served with the Public Health Service in Gallup, New Mexico.

Dr. Donald Tyler, a Fort Dodge internist, has relocated in Marshalltown where he will be associated with **Dr. Rufus Kruse** in Doctors Park. Dr. Tyler has practiced medicine in Fort Dodge since 1954.

Dr. Dean E. Finken, of Logan, was a panel participant at the recent annual delegate assembly of the Iowa Heart Association in Des Moines.

Dr. Carmelita A. Cendana, a native of the Philippines, has joined the Bluff Medical Center in Clinton to practice internal medicine. Dr. Cendana interned at Evangelical Deaconess Hospital in Detroit, Michigan from 1964-1965. She served her internal medicine residencies at Mercy Hospital in Baltimore; the Veterans Administration Hospital at Fort Howard, Maryland; and the VA Hospital in New Orleans. Dr. Cendana practiced in Canada from 1969-1970, and has been certified by the Royal College of Physicians in Canada. More recently, Dr. Cendana has been an emergency room physician at Mercy Hospital in Cedar Rapids.

At a recent meeting of the Pottawattamie-Mills County Medical Society, **Dr. Hormoz Rassekh,** Council Bluffs, introduced two new physicians for the area—**Dr. Robert Burns,** new pathologist and director of the Clinical Laboratory at Jennie Edmundson Hospital and **Dr. Bulent Tunakan,** a former professor of psychiatry at the University of Nebraska School of Medicine, who has joined Dr. Rassekh in private practice in Council Bluffs. Dr. Burns received the M.D. degree at the University of Illinois School of Medicine, interned at Cook County Hospital in Chicago, and served his pathology residency at the University of Miami Hospital in Miami, Florida. He is certified in both anatomic and clinical pathology.

Dr. Douglas N. Johnson, a Clinton psychiatrist, was guest speaker at a recent meeting of the Illowa Nurses Organization at Mercy Hospital in Clinton.

Dr. Richard L. Lawton, professor of surgery at The U. of I. College of Medicine, has been installed as president of the Iowa Academy of Surgery. Dr. Lawton is Director of the Renal Dialysis Center and Chief of Cancer Chemotherapy at Veterans Hospital in Iowa City. Following his one-year presidency, Dr. Lawton will serve on the Academy executive committee for two additional years. Dr. Lawton has guided establishment of the Renal Dialysis Center and also has been instrumental in the formation of the UI-VA Hospitals Kidney Transplantation Center.

Dr. J. H. Wise, of Cherokee, has retired from medical practice after 50 years as a general practitioner and surgeon. Dr. Wise received the M.D. degree at The U. of I. College of Medicine and took a residency at Detroit City Hospital. He began his career in Cherokee in 1925.

Dr. Ronald D. Eckoff, chief of Community Health Service for the State Department of

Health, was recently elected president of the Iowa Public Health Association.

Dr. James F. Stiles, of Cedar Rapids, was the guest speaker at a recent meeting of the Linn County Medical Assistants Association. Dr. Stiles is chairman of the drug abuse committee of the Linn County Medical Society.

Dr. Jaime Perea, of Bloomfield, was installed as a Fellow of the American College of Obstetricians and Gynecologists at its 20th annual meeting in Chicago. Dr. Perea is on the staff of the Gilfillan Clinic.

At the International Academy of Proctology Convention in San Diego, **Dr. Ivan E. Brown**, of Hartley, was elected Lecturer by Vote of the Executive Board of the International Academy of Proctology. Dr. Brown presented a paper on a new instrument he has designed and patented for treatment of polyps in the lower colon.

Dr. Leslie Bernstein, professor of otolaryngology and maxillofacial surgery at The U. of I. College of Medicine, was named recipient of the Ira J. Tresley Research Award of the American Academy of Facial Plastic and Reconstructive Surgery at the Academy's annual meeting in Palm Beach, Florida. The award is presented to the Academy member who presents the most excellent paper describing significant research in facial plastic and reconstructive surgery.

Drs. W. G. Garrett and **Robert E. McCoy**, of Mason City, have been appointed chairmen of the physicians section of the Professional Division for the 1972-1973 United Fund Campaign. The physicians comprise one of nine sections in the Professional Division.

The following Clarinda physicians have been chosen to head the medical staff at Clarinda Municipal Hospital—**Dr. E. E. Zehr**, chief of staff; **Dr. John Gambill**, vice president; and **Dr. A. E. Comeau**, secretary-treasurer.

Dr. R. E. Weland, of Cedar Rapids, has been named pathologist at Dyersville Community Hospital.

Dr. Kenneth S. Keyes, a fourth year resident in the Department of Otolaryngology and Maxillofacial Surgery at The U. of I. College of Medicine, won first place in a national medical art contest sponsored by Student American Medical Associa-

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tion and Eaton Laboratories. The award-winning photo will be shown at the SAMA convention in Los Angeles, the AMA convention in San Francisco and at other national medical meetings.

Dr. Stephan Fox, of Ottumwa, was installed as president of the Iowa Orthopedic Society at a recent meeting of the group in Des Moines.

Dr. Walter R. Hathaway, of Council Bluffs, has resigned as pathologist and director of the laboratory at Jennie Edmundson Hospital. Dr. Hathaway has accepted a position with a private laboratory in San Antonio, Texas, which serves two hospitals in San Antonio and two additional area hospitals.

Dr. George Spellman, of Sioux City, was guest speaker at a recent meeting of the Floyd Valley Health Planning Council. Dr. Spellman, who is president of the Woodbury Medical Society, discussed the establishment of an internship program in Sioux City.

Dr. James A. Clifton, professor and head of the Department of Internal Medicine at The U. of I. College of Medicine, has been elected to a five-year term as a member of the board of regents of the American College of Physicians. Only one other Iowa physician—the late **Dr. Walter L. Bierring**—served on the Board of Regents of the ACP. Dr. Bierring was a member from 1930-1939.

Dr. Wayne K. Cooper has retired following 27 years in the practice of radiology in Cedar Rapids. A 1936 graduate of The U. of I. College of Medicine, Dr. Cooper joined a Cedar Rapids group of radiologists in 1945. He is a past president of the medical staff at St. Luke's Hospital and a past president of the Linn County Medical Society. Dr. and Mrs. Cooper have built a home in Sanibel, Florida, where they will spend their retirement.

Dr. William C. Keettel, professor and head of the Department of Obstetrics and Gynecology at The U. of I. College of Medicine, has been awarded an honorary Doctor of Science degree from the University of Nebraska. The degree was conferred upon Dr. Keettel at recent commencement exercises.

Dr. J. H. Habermann, pathologist at Mercy Hospital in Fort Dodge, moderated a Cancer Detection for Women program presented recently in Algona and Bancroft. Topics discussed included breast, uterine, and cervical cancer.



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Director, Maternal and Child Health Division—Supervises and coordinates activities of staff in the Division and is responsible for planning and developing programs. Serves as consultant and resource person on matters relating to maternal and child health for staffs of visiting nurse associations and local hospitals, school health nurses, public health nurses, and personnel of other governmental and nongovernmental agencies. Develops budgets for the Division.

Minimum requirements are: license to practice medicine in Iowa, three years of professional experience in public health specializing in maternal and child health, and Master of Public Health degree. An additional year of the qualifying experience can be substituted for the degree. Salary range is from $23,616 to $33,240.

For information, write Arnold M. Reeve, M.D., M.P.H., Commissioner, Department of Health, Robert Lucas Bldg., Des Moines, Iowa 50319.

Dr. Hal B. Richerson, of Iowa City, was elected president of the Iowa Thoracic Society at the annual meeting of the Iowa Tuberculosis and Respiratory Disease Association. President-elect is **Dr. Joel Teigland;** vice-president is **Dr. James Kelsey,** both are of Des Moines. Elected secretary was **Dr. John E. Kasik,** of Iowa City. Elected to the executive committee were **Dr. Donald C. Zavala,** Iowa City; **Dr. Whealen M. Koontz,** Cedar Rapids; **Dr. C. M. Marriott,** Sioux City; **Dr. L. J. Kirkham,** Mason City, and **Dr. Sergio Rabinovich,** Iowa City.

Dr. Elmer A. Larsen, of Centerville, will become director of student health at Cornell College on August 15. Besides serving as college physician, Dr. Larsen will teach in the Department of Health and Physical Education. Dr. Larsen has practiced medicine and surgery in Centerville since 1930.

Dr. R. E. Shaw, of Waverly, was guest speaker at a recent meeting of the Iowa Guild for Infant Survival. Dr. Shaw told of his experiences with "crib death" babies.

Dr. Leo Davidson and his wife, **Dr. Young Davidson,** both former staff psychiatrists at the Galesburg Research Hospital in Illinois, have joined the medical staff of the Mental Health Institute in Mt. Pleasant. Dr. Leo Davidson received the M.D. degree at Giessen University in West Germany in 1939, and served his residency in psychiatry at Hawthornden State Hospital in Ohio. Dr. Young Davidson received the M.D. degree in Seoul, Korea, and served her residency in psychiatry at the Cleveland Psychiatric Institute.

Dr. Russell Cox, an Estherville radiologist, recently attended a refresher course in radiological diagnosis of pediatric bone disease at Kansas City and also a refresher course in renal radiology at the Mayo Clinic, Rochester.

Dr. George C. Kealhofer has joined **Dr. R. F. Deranleau** in the practice of medicine at Perry. Dr. Kealhofer has been associated with the Veterans Administration Hospital in Hot Springs, South Dakota, for the past year and for 29 years prior he was in general practice at Kansas City, Missouri. Dr. Kealhofer attended the University of Tennessee Medical School and served his internship in Kansas City, Missouri.

Dr. William C. Keettel, head of the Department of Obstetrics and Gynecology at The U. of I. College of Medicine, was elected second vice president of the American College of Obstetricians and Gynecologists at the recent annual meeting.

Dr. H. D. Kuska, an Ottumwa general practitioner, has taken a leave of absence from his Ottumwa practice, for three months' specialized training in hypnoanalysis. Dr. Kuska will study with **Dr. William Bryan,** of Los Angeles, California, and **Dr. Emil Spilman,** of Atlanta, Georgia.

At the May meeting of the Wright County Medical Society, **Dr. and Mrs. Dan Egbert,** of Fort Dodge, gave a team slide presentation on their trips behind the Iron Curtain.

Dr. Kenneth Gee, of Shenandoah, was recently named "Outstanding Citizen" of the year by the local Lions Club for his many contributions to the community. The award was presented at a banquet honoring Dr. Gee.

Dr. Charles V. Waggoner, of Clinton, who recently retired from active medical practice, was honored at a tea given by the employees of Jane Lamb Hospital in Clinton. Dr. Waggoner received the M.D. degree at the University of Illinois School of Medicine in 1926. He interned at University Hospitals in Iowa City and took training in obstetrics and gynecology at the Chicago Lying-In Hospital and Dispensary. Dr. Waggoner started his practice of medicine in Clinton in 1928 specializing in obstetrics, gynecology and anaesthesia.

Dr. Francis E. Flannery, of Cedar Rapids, has been elected president of the Linn County Medical Society. Other officers are **Dr. H. R. Hirleman,** vice president; **Dr. Robert A. Sedlacek,** president-elect; and **Dr. Carl R. Aschoff,** secretary-treasurer.

Dr. Kazem Fathie, a Cedar Rapids neurosurgeon, was guest speaker at the monthly meeting of the Linn County Association for Children with Learning Disabilities. His talk entitled "What Do You Know About the Brain?" dealt mainly with the anatomy and physiology of the brain.

A book depicting the development of the senior citizens program in Waverly from its inception until the completion of the Mitchell Manor Senior Citizens Center has been dedicated to **Dr. Herbert W. Rathe,** of Waverly, for his many services to the program and to the senior citizens of the area. The book was compiled by **Cora Ebert,** of Waverly, and contains pictures and articles written by various members of the Waverly senior citizens group.

Dr. Paul J. Leehey, of Independence, has been appointed to the health delivery systems committee of the State Office for Comprehensive Health Planning. Dr. Leehey will represent the Iowa Medical Society on the state committee.

Dr. George Winokur, professor and head of the Department of Psychiatry at The U. of I. College of Medicine, has been named co-winner of the Hofheimer Prize for Research awarded by the American Psychiatric Association. The award was presented to Dr. Winokur for a research paper entitled, "A Half-Sibling Study of Alcoholism." It was co-authored by **Dr. Mark A. Schuckit,** University of California, San Diego, and **Dr. Donald W. Goodwin,** Washington University, St. Louis.

Dr. Lewis E. January, professor of internal medicine at The U. of I. College of Medicine, re-



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ceived the Dr. Helen B. Taussig award of the Central Maryland Heart Association at the group's recent annual meeting. Presented to an individual who has made significant contributions toward advancing research, education and service in the field of heart disease, the award was established as a tribute to Dr. Taussig, distinguished professor emeritus at Johns Hopkins University. Dr. January is a past president of the American Heart Association.

Dr. Frank T. Aledia, of Fort Madison, was recently certified as a member of the American College of Urology. Dr. Aledia is associated with the Valley Clinic.

The following faculty members of the Department of Internal Medicine at The U. of I. College of Medicine participated in a postgraduate conference sponsored by the American College of Physicians—**Dr. James A. Clifton,** professor and head of the department; **Dr. Stanley G. Korenman,** professor; **Dr. James Christensen,** associate professor; **Dr. William B. Bean,** Sir William Osler Professor of Medicine; and **Dr. Donald G. Zavala,** assistant professor. "Progress in Internal Medicine With Emphasis on Humoral, Metabolic and Immunological Mechanisms," was the theme of the conference.

Dr. Clifford L. Rask, of Maquoketa, has accepted a two-month assignment with the foreign mission service in Africa. Dr. Rask will be on the staff of a "bush hospital" near Zorzor, Liberia.

Dr. George N. Bedell, of Iowa City, has been elected to the board of directors of the National Tuberculosis and Respiratory Diseases Association. He will serve until May 1974. Dr. Bedell has served three years as president of the Iowa Tuberculosis and Respiratory Diseases Association.

Dr. Montague S. Lawrence, Dr. Thomas E. Stark, and **Dr. W. J. Moershel,** Cedar Rapids physicians, were program participants at the annual meeting of the American Association of Medical Assistants, State of Iowa, Inc., which occurred in Cedar Rapids. Dr. Lawrence conducted a cardiovascular workshop; Dr. Stark a workshop on urology; and Dr. Moershel a workshop on psychiatry.

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Dr. Howard Wolf, of The Longmont Clinic, Longmont, Colorado, has been elected president of the Colorado Academy of Family Physicians. A 1959 graduate of The U. of I. College of Medicine, Dr. Wolf is the son of **Dr. Henry H. Wolf,** of Elgin.

At the 4th Annual Delegate Assembly of the Iowa Heart Association, **Dr. F. O. W. Voigt,** of Oskaloosa, was installed as President for 1972-1974; and **Dr. Dale A. Harding,** of Eagle Grove, was named Vice President. Newly elected board members are—Dr. Harding; **Dr. H. A. VanHofwegen,** of Newton; **Dr. William R. Wilson** and **Dr. E. O. Theilen,** both of Iowa City; **Dr H. E. Rudersdorf,** of Sioux City; **Dr. Robert L. Todd,** of Burlington; and **Dr. Dean E. Finken,** of Logan.

DEATHS

Dr. Ivan R. Powers, 76, of Waterloo, died at Allen Memorial Hospital on May 11. Dr. Powers received the M.D. degree at The U. of I. College of Medicine in 1923. He served his internship at Council Bluffs and began the practice of medicine in Waterloo in 1924, remaining in practice there until his retirement in 1967. During his World War I service in the Medical Corps, Dr. Powers received the Silver Star and Purple Heart. He was a past president of the Black Hawk County Medical Society, a member of the Iowa Medical Society and American Medical Association.

Dr. Louis L. Bowie, 93, of Zearing, died at Stewart Hospital in Lake City on May 9. A 1905 graduate of The U. of I. College of Medicine, Dr. Bowie practiced medicine at Moorhead before moving to Zearing in 1920. He conducted a general practice in Zearing until the late 1930's, when he became associated with the Woodward State Hospital. In 1942 Dr. Bowie joined the medical staff at the Iowa Soldiers Home in Marshalltown and retired from this position in 1958. He was a life member of the Iowa Medical Society.

Dr. J. Donald Hennessy, 64, died May 9 at Council Bluffs where he had practiced medicine since 1937. Dr. Hennessy received the M.D. degree at The U. of I. College of Medicine in 1931, and served his internship at the Long Island College Hospital in Brooklyn, New York. He was a member of the medical staff at both Mercy and Jennie Edmundson Hospitals in Council Bluffs and an instructor in surgery at the Creighton School of Medicine in Omaha. A veteran of World War II, he was also a member of the American Academy of Family Physicians, the Flying Physicians, Civil Aviation Medical Society, International Academy of Proctology, the Pottawattamie-Mills County Medical Society and the Iowa Medical Society.



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No charge is made for the ads of members, wives of deceased members of the Iowa Medical Society or physicians seeking Iowa locations; for others the cost is $1.00 per line, $5.00 minimum per insertion. Copy for ad must be received by the seventh of the month for the following issue. Send to JOURNAL OF THE IOWA MEDICAL SOCIETY, 1001 Grand, West Des Moines 50265.

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FOR SALE—Ritter Motor Chair, $350; Ritter Stool, $35; ENT Cabinet with motor, $75; Maico 28 Audiometer (ASA), $150; Pelton Sterilizer, 16×6×4 (New), $80; EENT Cameron Cautoradio, $50; Ur-O-con CL edge inspector, $35; Corneal Rust Ring Remover, $25; Allen Thorp B&L Gonioscope, $25; Presbyopic Trial Lens Set, $25; Lancaster Eye Magnet, $25; Radiuscope, like new, $400; Automatic C. L. edge Polisher (WJ), $75; AO Thermojet Frame Warmer, $25; B&L PD Meter, $20; B&L Microscope, $35; Refraction Trial Frame, $25; AO Projecto Chart, $25; Black Light C. L. Inspection Light, $25; Glasses Adjustment Tools, $3. to $4. each and many EENT examining, surgical and endoscopic instruments at greatly reduced prices. Write or call Marshall D. Huston, M.D., 2112 Merner Avenue, Cedar Falls, Iowa 50613. 319-266-3792.

WANTED—Family practitioner or internist to join five-physician group. Equitable division of work, income, vacation and postgraduate education. Address your inquiry to Fort Dodge Clinic, 1005 Second Avenue, North, Fort Dodge, Iowa 50501.

EXPANDING ELEVEN MAN GROUP has openings for an Ophthalmologist, General Practitioner or Family Practice Physician, General Surgeon and Internist. New Clinic building. University city. One hour from St. Paul. Summer and winter recreation unlimited. Will finance travel for interview. Call or write A. A. Drescher, M.D., or Russell Peterson, Clinic Manager, P. O. Box 337, Menomonie, Wisconsin 54751. Telephone 715-235-9671.

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NEW FAMILY PRACTICE OF MEDICINE RESIDENCY sponsored by McKennan Hospital and Sioux Valley Hospital in Sioux Falls is seeking applicants for Medical Director of the program. Unusual and challenging opportunity to develop program from the inception. If interested, please contact Mr. B. Scott Reardon, 320 East 27th Street, Sioux Falls, office telephone 336-0520, home telephone 336-7774; Dr. Robert Olson, 2713 West 28th Street, Sioux Falls, office telephone 336-0910, home telephone 336-0562; or Dr. Robert Donahoe, 101 East 33rd Street, Sioux Falls, home telephone 332-7794, office telephone 336-1820.

FOR SALE—A.O. Refraction chair and phoropter $100. Three EENT cabinets with motors $25 each. Maico audiometer $50. Autoclave sterilizer $50. Eye magnet $10. Spencer microscope $50. Glasses adjustment tools $3 each, and many EENT examining and surgical instruments cheap. $1,500 wholesale inventory new frames with frame bar $1,000. Slit lamp $100. Write or call E. A. McMurray, M.D., R.F.D. No. 2, Kellogg, Iowa 50135. 515-236-3647.

SEVEN-MAN GROUP badly in need of a general surgeon certified or board eligible. Prefer subspecialty thoracic and vascular. Excellent clinic facilities. Located in a city of 80,000 in Northeastern Iowa with university in metropolitan area. Salary negotiable, partnership at the end of second year. Address your inquiry to No. 1481, Journal of the Iowa Medical Society, 1001 Grand Avenue, West Des Moines, Iowa 50265.

ORTHOPEDIC SURGEON, certified or board eligible to join a seven-man group in Northeastern Iowa. Excellent clinic facilities complete with x-ray suites, physical therapy department, and laboratory department. Good hospital facilities available in the area. This is an excellent opportunity for the right man. Partnership after the second year. Write No. 1482, Journal of the Iowa Medical Society, 1001 Grand Avenue, West Des Moines, Iowa 50265.

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August 18-27

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PHYSICIANS NEEDED—Orthopedic and general surgeons, urologists, internists, ob-gynecologists, and general practitioners to establish independent practice in Petoskey, Michigan—the Midwest's Skiing Mecca and world famous resort community. Local college, excellent schools, seasonal sports, summer and winter concerts. A great selection of restaurants, theatre, hunting, fishing, golfing, sailing, unique and unusual summer shops, and frequent airline service make this an unrivaled living area. New acute care, general hospital will provide one year's rental on adjacent luxurious office suites, moving stipend, and negotiate other financial arrangements. Contact Milton D. Rasmussen, Administrator, or Wendell C. Trent, Asst. Administrator, Lockwood MacDonald Hospital, Petoskey, Michigan 49770. 616-347-3985.

FOR SALE—Complete office equipment and furniture of deceased physician available for purchase. Inquire Michael Maher, 1400 Central National Bank Building, Des Moines, Iowa 50309. Telephone 515-288-6041.

WANTED NOW—General practitioner, internist, pediatrician, and obstetrician-gynecologist in moderate sized Iowa community. Practice opportunities excellent. Address your inquiry to No. 1478, Journal of the Iowa Medical Society, 1001 Grand Avenue, West Des Moines, Iowa 50265.

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IN THE PUBLIC INTEREST



THE SUBJECT OF IMMUNIZATION *was discussed at a recent meeting of the Iowa Medical Society Committee on Maternal and Child Health. A source of expertise was Charles A. Herron, M.D., Director, Infectious Disease Division, Iowa State Department of Health. What follows is a condensation of Dr. Herron's remarks to the Committee. His thoughts will be of interest to Iowa physicians and the general public.*

• • •

Routine immunization during early childhood is currently recommended against diphtheria, pertussis, tetanus, poliomyelitis, measles, mumps and rubella. Safe and effective vaccines against these diseases are available. Vaccination protection is available to virtually every pre-school child.

Immunization programs usually have two distinct stages—the attack-phase and the maintenance-phase. Attack-phase activities are usually mass-vaccination campaigns developed when a new and effective vaccine becomes available. These are designed to reach every person in the population who may be susceptible to the disease concerned. They are usually centrally planned and coordinated and are carried out over a brief period with a great deal of publicity and enthusiasm. They actively and aggressively seek out a target group. Iowa's most recent attack-phase programs were those against measles and rubella. Both of these campaigns reached about 80 per cent of their estimated target populations. The initial campaigns with DPT and polio vaccines were completed some years ago. All of these programs had excellent results as demonstrated by marked declines in incidence of the respective diseases.

MAINTENANCE-PHASE

After completion of the attack-phase, the maintenance-phase begins. The target group then is limited to persons missed during the attack-phase or born since that campaign. About 45,000 children are born in Iowa every year, and this represents the basic target population for each year's maintenance immunization efforts. Maintenance-phase activities usually consist of multiple, uncoordinated and routine efforts carried out in the offices of physicians. This ongoing immunization of new susceptibles is usually done without much public notice, interest or acclaim. It is also done without the degree of central coordination and community organization which characterized the various attack-phase campaigns. By their nature these efforts do not lend themselves to evaluation in terms of determining how many of the 45,000 children receive immunizations.

This past year the State Health Department has conducted an ongoing immunization survey by mailing questionnaires to the parents of children born in Iowa during the quarter 15 to 18 months earlier. According to the currently-recommended immunization schedule, by this age every child should have received the basic DPT and polio vaccine series, as well as single-dose vaccinations against measles, mumps and rubella. The table on reverse page summarizes the survey findings.

The figures represent the best available evaluation of maintenance-phase immunization activities in Iowa. School nurses partially tabulated immunization levels of children entering kindergarten in 1970. Their findings showed coverage rates similar to the SDH quarterly survey results, except for a 71.5 per cent coverage rate for rubella. This study came on the heels of the 1970 rubella mass-vaccination campaign which might explain the disparity. This striking difference in rubella-coverage rates might also be interpreted as a good demonstration of the effectiveness of the active approach as used in the mass-campaign.

A VIEWPOINT ON IOWA IMMUNIZATION ACTIVITY

PRAISE FOR PROFESSION

On the basis of these data we can say that the present routine, ongoing maintenance immunization program in Iowa reaches about 85 per cent of the target group for DPT and polio, 67 per cent for measles, 45 per cent for rubella and 30 per cent for mumps. This is a very good record for a quiet, steady and decentralized program. The State Health Department extends its sincere compliments to all practicing physicians who have made immunization an important and routine part of their medical practices and have helped to establish this record. This is indeed a job well done.

The job of delivering vaccine to those children whose parents do not bring them routinely to the physicians' offices, however, still remains largely undone. The studies cited indicate this group of "non-presenters" includes as much as one-third of the measles and one-half of the rubella target populations for the State as a whole. Inability to reach this proportion of children represents a significant gap in Iowa's on-going routine maintenance immunization program.

From the disease incidence point of view, the gap in maintenance immunization coverage has been most apparent in regard to measles. After reaching low levels for one or two years following completion of the attack-phase campaign the numbers of cases reported has increased steadily during the past three years. The total of 2,717 cases reported in 1971 was equal to that of 1951 and exceeded the 1945 and 1960 totals. Several significant outbreaks of measles were noted by the State Department of Health during the 1971-72 school year.

The experience indicates that under the present maintenance immunization practices in Iowa, significant morbidity due to measles may be expected. Similar outbreaks have not yet been noted for the other immunizable diseases. This may be due to such factors as (1) better coverage for vaccinations such as DPT and polio which are given early in the first year of life when maternal interest may be higher; (2) secondary spread of vaccine virus and subclinical infection, which may be true of polio; (3) greater difficulty in diagnosis and/or poorer reporting which may be the case with mumps; and (5) differences between the normal epidemiologic patterns of the specific diseases. It seems reasonable to anticipate that continued significant morbidity will also occur in the case of rubella, and might already be apparent if ease of diagnosis, degree of illness and levels of reporting were comparable to those for measles.

STILL NEED ATTENTION

It may be concluded that maintenance immunization coverage in general in Iowa is somewhat less than ideal and the deficit in coverage is greater for vaccines given during the second year of life. In the case of measles, the current levels of maintenance immunization appear not to be able to prevent significant outbreaks of disease, and the same may prove true for rubella.

The State Health Department recognizes that the continued occurrence of immunizable disease carries with it a significant cost in terms of temporary loss of health, occurrence of medically-related monetary expenses, and increased work-load put upon medical care providers and facilities in the community. The State Department of Health believes with currently available vaccines and technology, maintenance vaccination can be improved and incidence levels lowered. The Department is anxious to and interested in working with the Iowa Medical Society to improve maintenance immunization procedures and practices.

• • •

The Iowa Medical Society, through its Committee on Maternal and Child Health and its network of county medical societies, will continue to be supportive in seeking the goals which have been enunciated here. The Society has advocated that immunization activities be locally planned, authorized and implemented to the fullest extent possible.

IMMUNIZATION COVERAGE BY VACCINE, CHILDREN 15-18 MO. OF AGE, IN IOWA 1970

Period of Birth in 1970	No. Forms Deliv'd	Per Cent Forms Returned	Per Cent of Responders Reporting Immunization, by Vaccine: DPT 3 Doses	Polio 3 Doses	Polio 2 Doses	Measles	Mumps	Rubella
1st Quarter:								
Statewide	10,083	50.9	85.1	59.0	25.5	67.6	28.6	44.4
(Range by County)	(13-1,155)	—	(50-100)	(17-91)	—	(25-89)	(5-70)	(14-83)
2nd Quarter:								
Statewide	9,933	51.7	83.8	55.8	27.3	66.8	32.5	45.6
(Range by County)	(16-1,102)	—	(37-100)	(17-79)	—	(38-92)	(9-66)	(18-67)
Summary, Jan.-June, 1970	20,016	51.3	84.5	57.4	28.4	67.2	30.6	45

Doctor's Business

by LARRY E. LEAVERTON

TIME SAVING EQUIPMENT

With the physician's time at a premium and office costs going up, it is necessary to look for ways to save both time and costs. Current estimates of the cost of dictating and transcribing a printed page, whether it is a business letter, report to an insurance company, insurance form or a detailed patient history, are now from $3 to $5.

It is a fact that both time and expense can be saved by good dictating equipment.

There are many types of equipment on the market, the small easily portable units, the standard desk types, and the central remote control types with flexibility in the number of stations. The two major developments in recent years are miniaturization and remote control. Remote control units allow ordinary telephones to be used by dictators from within the office or from outside. Individual circumstances, such as amount and type of use, should be considered in choosing the type. Service factors are important as with any type of equipment.

The chief advantages are in time saved and in efficiency. A dictator can talk into a machine twice as fast as he can dictate to a secretary and four times as fast as he can write in longhand.

Common problems with dictating equipment include the use of too many words, rambling or digression, or difficulty in organizing material. Some persons have writer's block. When faced with the task of dictating they "freeze up," just as some people freeze up on the telephone. Others haven't mastered the effective use of their voice —a smooth flow of expression.

The solution to these problems comes from practice. There is a common business axiom in communications, "If something can be misunderstood, it will be misunderstood." Most persons who can arrange thoughts and opinions in logical order in conversation can do it in dictating. All of the rules of communications apply.

One authority in teaching people to dictate effectively suggests these four steps:

1. Write out and read the material into the machine.
2. Dictate from an extensive outline where the key thoughts in each paragraph are written.
3. Dictate from a concise outline. Emphasis is placed on good preparation with the amount of writing reduced to a minimum.
4. Dictate from a mental outline.

Other tips in effective dictating:

- Time your dictating periods so they will fall in the best possible spot in your daily routine.
- Try to prevent unnecessary interruptions.
- Have all information at hand.
- Give full and complete information to transcriber.
- Use an outline—physical or mental—key words or thoughts. Have thoughts in proper sequence—a track to run on.
- Speak naturally, avoiding stilted words and phrases.
- Ask for a rough draft if you anticipate changes. You can then go back and fill in words or phrases that didn't come to you when you were dictating.
- Try to eliminate distracting mannerisms such as coughing, heavy breathing.
- Use good enunciation.
- Spell out technical or unusual words, depending on the experience of the medical assistant who is transcribing.
- Indicate corrections so letters or reports will not need to be re-typed.

Whether or not patient histories are dictated or hand-written is a personal matter. There are advocates of each method. If there is a great deal of detail and significant time is spent, there would be a good case for dictating. Any executive or professional man is more effective if he records his thoughts as they occur rather than postponing them until later.

Some physicians have used the worn excuse, "I tried it once and didn't like it." If some years have elapsed, try it again. With the new modern units now available, you may like it!

Mr. Leaverton is Director of Research for Professional Management Midwest.

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Librium (chlordiazepoxide HCl) is used as adjunctive antianxiety therapy concomitantly with certain specific medications of other classes of drugs, such as cardiac glycosides, antihypertensive agents, diuretics, anticholinergics and antacids.

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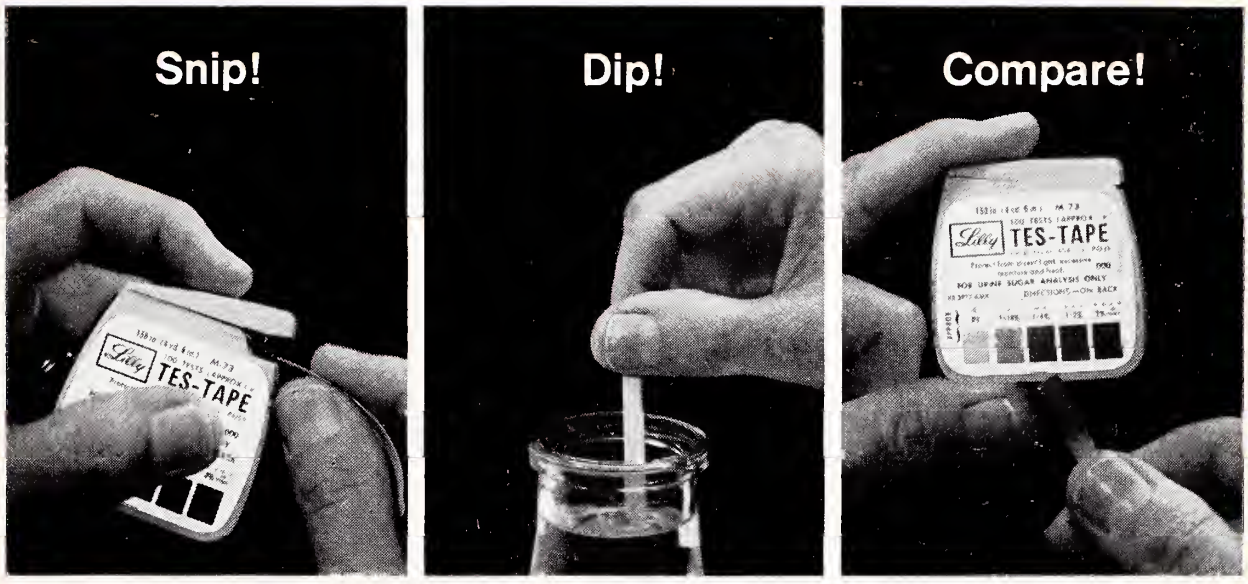
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Indications: Indicated when anxiety, tension and apprehension are significant components of the clinical profile.
Contraindications: Patients with known hypersensitivity to the drug.
Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards.
Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.
Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.
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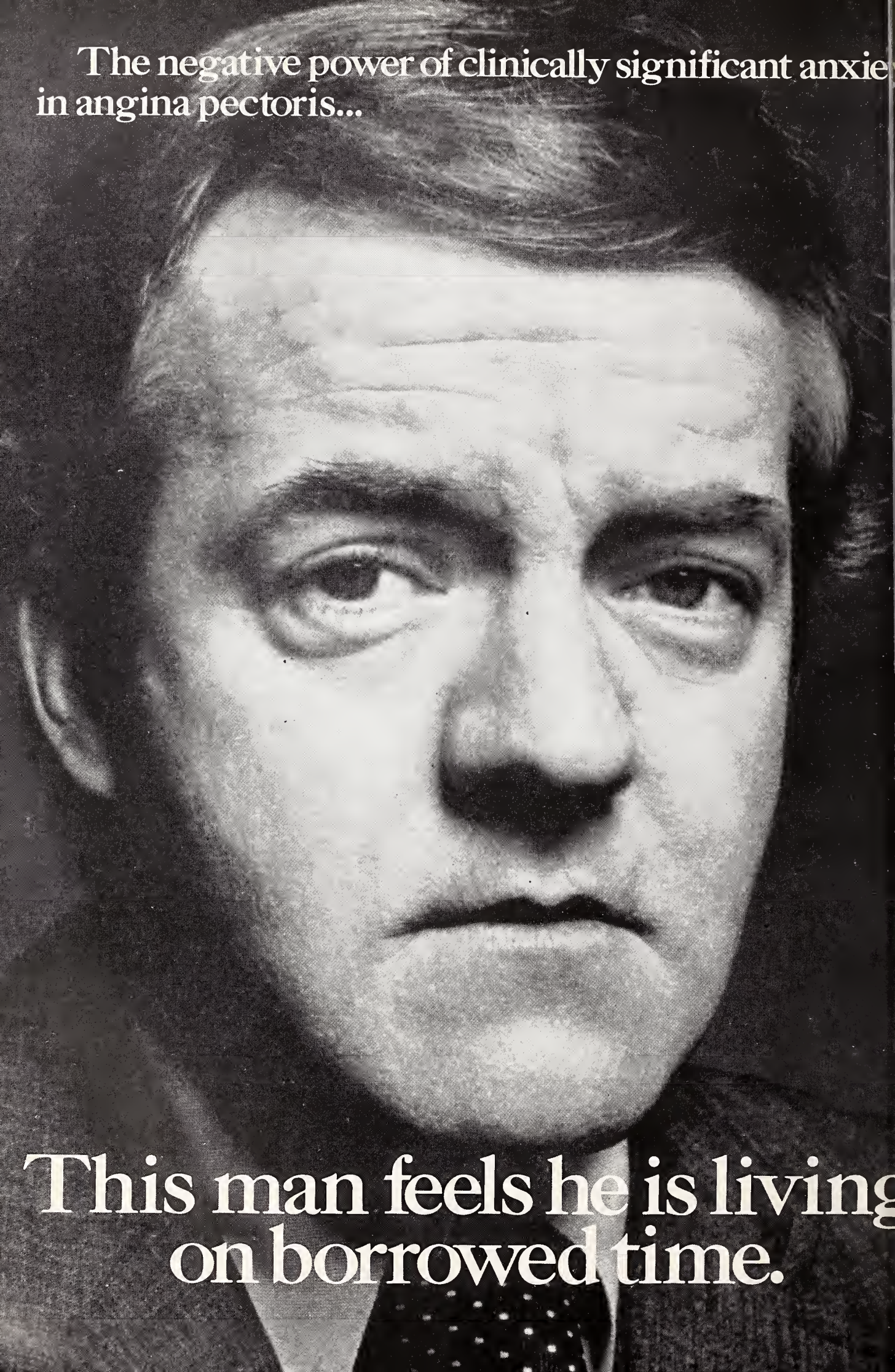
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SEPTEMBER 1972


The negative power of clinically significant anxie
in angina pectoris...
This man feels he is living
on borrowed time.

During anginal attacks, patients may suffer intense apprehension. More frequently, however, they experience a continuing sense of less severe but nonetheless disproportionate anxiety.

Reduction of such clinically significant anxiety is important, since undue emotional stress may precipitate further anginal episodes.

djunctive Librium (chlordiazepoxide HCl) may be specially suitable for relief of clinically significant nxiety and emotional tension in anginal patients ecause of its generally prompt therapeutic effectiveess and wide margin of safety. In a recent double-blind andomized study,* Librium (chlordiazepoxide HCl) as administered for relief of moderate anxiety in 20 nginal patients seen in office practice over a 20-week eriod. Symptoms of emotional distress related to nxiety were rated at base-line, one week, two weeks nd monthly thereafter. Relief was obtained notably rly in therapy. The clinical results demonstrated that ibrium offers the coronary patient an antianxiety drug hat, in the author's opinion, is both effective and safe. n general use, the most common side effects reported ave been drowsiness, ataxia and confusion, articularly in the elderly and debilitated. (See mmary of prescribing information.)

ibrium (chlordiazepoxide HCl) is used concomitantly ith certain specific medications of other classes of rugs, such as cardiac glycosides, diuretics and antihyertensive agents, whenever anxiety is clinically signifint. The drug should be discontinued after anxiety has een reduced to appropriate levels.

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10-mg, 25-mg capsules up to 100 mg daily

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Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

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*Levine, S.: "Angina Pectoris and Emotional Overlay," Scientific Exhibit presented at the Annual Meeting of the Maine Medical Association, Kennebunkport, Me., June 13-15, 1971.

A copy of the Levine study may be obtained from your Roche representative.

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President's Page



I am happy to report the Iowa Foundation for Medical Care now has a majority of Iowa physicians as members. We are pleased to have achieved this level of membership in a year's time. We continue to urge practitioners who have not done so to affiliate with the Foundation. Membership is attained simply by advising of this desire in a letter with a $10 check. Obviously, the Foundation's future will be successful in direct relation to the support given it by the medical profession.

Speaking of the future, and consistent with the recent dual action (approved by both the Foundation and the IMS) which entrusts peer review responsibility to the Foundation, I call attention to an educational effort which will commence this month. Foundation officers are going to meet with district peer review committees to explain procedures, format, philosophy, etc. Meetings in early to mid-September are scheduled in Washington, Ottumwa, Mason City and Monticello.

Be mindful that the Foundation exists as an instrument solely of the medical community to serve the public and the profession. Its mission is well stated in the corporate charter: *To develop, promote, and encourage the distribution of quality medical services to those served at an equitable cost and in an appropriate quantity.*

B E Schmitt, MD

President

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IOWA Medical Miscellany

1973 SCIENTIFIC SESSIONS . . . The 1973 Scientific Sessions of the Iowa Medical Society will occur from March 29 to April 2 at Paradise Island in Nassau, Bahamas. The 1973 Program Committee, under the chairmanship of L. J. Gugle, M.D., Ottumwa, has devised a program which gives attention to adolescent problems, medical emergencies and new developments in medicine. The program places particular emphasis on situations which confront the physician in his day-to-day practice. Details of the 1973 meeting were sent to IMS physicians in a late August mailing. Further mailings are planned. Reservations will be handled in order of receipt until capacity is reached. This new approach to the presentation of the Society's Scientific Sessions is in line with action taken by the 1972 House of Delegates. Per person cost is $240 . . . **MAR. 29-APR. 2 IN THE BAHAMAS.**

MERIT AWARD . . . The 1972 Award of Merit of the Iowa Medical Society was presented belatedly to Donald O. Maland, M.D., Cresco, at the July 19 meeting of the Society's Executive Council. Dr. Maland was unable to attend the Annual Meeting Banquet in April at which his selection as the 1972 Merit Award winner was announced. Dr. Maland served for 12 years as secretary of the IMS Grievance Committee. He is a 1943 graduate of The U. of I. College of Medicine and is in family practice in Cresco.



COUNCILOR APPOINTMENT . . . Ralph Hines, M.D., Des Moines, has been appointed to succeed Homer Wichern, M.D., Des Moines, as councilor of the IMS Fifth District. Dr. Hines will serve until the 1973 Annual Meeting of the IMS House of Delegates.

SUDDEN INFANT DEATH PARLEY . . . A regional conference on the sudden infant death syndrome will occur in Des Moines Tuesday, September 26. The conference will be at the Des Moines Area Community College. Interested physicians may pre-register with Judy Gossen, Short Course Office, Des Moines Area Community College, 2006 Ankeny Blvd., Ankeny, Iowa 50021.

REAFFIRM ACTION . . . The IMS Executive Council reaffirmed its support for mandatory testing for rubella antibodies as part of the required premarital examination. The action was taken on a recommendation from the Committee on Maternal and Child Health requesting the Society to cooperate with the State Department of Health in its efforts in this area. No reference was made to the ways and means of instituting the testing program.

AMA REPRESENTATIVE . . . C. D. Ellyson, M.D., Waterloo, has been appointed one of five AMA representatives on the Joint Committee on Health Problems of the AMA and the National Education Association. Dr. Ellyson is chairman of the IMS Committee on Health Education.

CHANGES IN MEDICAID . . . New reimbursement determination procedures covering Medicaid recipients residing in intermediate care facilities and basic nursing homes will become effective November 1. Under new legislation (P.L. 99-223) and the anticipated regulations, cost-plus incentive payment provisions will be used, and medical review will be required annually of each patient residing in either an ICF or BNH. Also required will be a form of prior authorization where Department of Social Services must endorse admission to a particular facility. In sustaining a July 19 report from the Subcommittee on Aging and Chronic Illness, the IMS Executive Council acknowledged the program and indicated a willingness to support the Department of Social Services in implementing it. The Council urged distribution of additional information to physicians.

(Please turn to page 468)

THE JOURNAL OF THE IOWA MEDICAL SOCIETY

VOL. 62 NO. 9
SEPTEMBER 1972

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IOWA Specialty Groups

Editor's Note: *This feature appeared for the first time in the August issue of the* JOURNAL. *It is provided as a service to the specialty organizations which are active in Iowa. We invite the officers of Iowa specialty groups to submit information for use on this page.*

IOWA PSYCHIATRIC SOCIETY . . . In the most recent IPS newsletter, John Clancy, M.D., Society president, calls for active member involvement in both the Iowa Psychiatric Society and the Iowa Medical Society. The IPS has expanded its organizational structure to include seven committees. The IPS Scientific Meeting will be October 13 and 14 in Iowa City with a psycho-pharmacology workshop, a section on neurology and cerebrovascular disease, a section on forensic psychiatry, as well as sessions on recent advances in psychiatry.

IOWA CHAPTER, AMERICAN ACADEMY OF PEDIATRICS . . . Chapter will meet in Iowa City in conjunction with a Conference on Pediatrics to occur September 13 and 14.

IOWA UROLOGICAL SOCIETY . . . Society members will confer September 15 and 16 in Iowa City and will participate in a Urology Postgraduate Conference.

IOWA ACADEMY OF OPHTHALMOLOGY & OTOLARYNGOLOGY . . . Annual meeting of the Iowa Academy of Ophthalmology & Otolaryngology will be September 15 in the Memorial Union at The University of Iowa in Iowa City.

IOWA SOCIETY OF ANESTHESIOLOGISTS . . . Larry Saidman, M.D., Miami, Florida, will be the principal speaker at the fall meeting to be held September 22 and 23 at the Iowa Memorial Union in Iowa City. Dr. Saidman will participate in a morbidity-mortality conference also.

IOWA CLINICAL SOCIETY OF INTERNAL MEDICINE . . . Society is now working with the College of Medicine to provide a four-week elective rotation in general internal medicine for senior medical students. The clerkships will serve to provide interaction between medical students and practicing internists in the State. The Department of Internal Medicine will devise objectives and require written evaluations. Expenses will be limited to provision of room and board. A program wherein residents in internal medicine spend a month with an Iowa internist began July 1.

IOWA ACADEMY OF SURGEONS . . . Academy members will meet in Iowa City September 22-23 at the time of a postgraduate course.

IOWA ACADEMY OF FAMILY PHYSICIANS . . . Iowa chapter was one of three state chapters to receive a certificate of merit for effective work in membership promotion. Twenty-fourth annual Scientific Assembly of the Iowa Academy of Family Physicians will be October 25-26 at the Hyatt House in Des Moines. Phil Thorek, M.D., and Beverly Meade, M.D., will be on the scientific program. The 1972 Scientific Assembly of the American Academy of Family Physicians will be September 25-28 in New York City. The next meeting of the Iowa Family Practice Club will be this month during the orientation week for freshman medical students.

IOWA OBSTETRICAL AND GYNECOLOGICAL SOCIETY . . . The Society will meet in connection with a postgraduate course it is co-sponsoring December 6 and 7 at The University of Iowa College of Medicine in Iowa City.

IOWA CLINICAL SURGICAL SOCIETY . . . Fall meeting of the Society will be November 2, 3 and 4 at the Mayo Clinic in Rochester, Minnesota. Tours of the hospitals are planned. A special tour of the Charles Mayo mansion is planned for the wives. The Kahler Hotel will serve as the headquarters.

IOWA THORACIC SOCIETY . . . The Society has been involved in establishing new instructional program in inhalation therapy. First class of 20 students is now enrolled in program at Kirkwood College (Cedar Rapids). Veterans Administration and other hospitals in Iowa City and Cedar Rapids area also will be used for instruction. John E. Kasik, M.D., is director of the two-year program.

IOWA MEDICAL MISCELLANY

(Continued from page 465)

STUDENT SOCIETY . . . An official component student medical society of the IMS continues to be in the formative process. Medical student representatives advised the Executive Council in July that the Iowa Chapter of SAMA is likely to be designated the component student society. But provision is expected to be made for direct IMS student membership for those who do not elect to join SAMA.

ALCOHOLISM PROJECT . . . The IMS Committee on Alcoholism is planning to confer this fall with youth who participated in the two summer workshops concerned with alcohol and other chemical substances. Approximately 20 young people attended these workshops under the sponsorship either of county medical societies or the Scanlon Medical Foundation.

PHYSICIANS' FEES . . . Physicians' fees rose 1.37% during the first nine months of the Economic Stabilization Program, whereas the overall Consumer Price Index increased 2.05% during the same period. The increase is less than one-third of 4.38% increase in physicians' fees during the nine months before the freeze began.

BEGIN PRACTICE . . . Twenty-three new physicians have started to practice in Iowa in recent weeks. See About Iowa Physicians section for names and locations of these newcomers.

PHYSICIAN SHORTAGE . . . Shortage of physicians is starting to let up, according to Department of Labor reports. HEW estimated 320,000 physicians in active practice at the end of 1970. The Labor Department predicts the nation's minimal need for MD's and DO's should be met sometime during 1976 or 1977, and that by 1980, 413,000-436,000 physicians should offset the estimated need for medical manpower.

MEETINGS CONTINUE . . . The Society's Committee on Delegation of Authority has met twice in recent weeks with representatives of the Iowa Board of Nursing Examiners and the Iowa Nurses' Association. Under discussion is the subject of delegation of responsibility to paramedical workers. The discussions are scheduled to continue.

SCIENTIFIC MEETING . . . The Des Moines-Louisa County Medical Society will offer a one-day scientific meeting for interested physicians on Wednesday, September 13, at the Burlington Golf Club. Guest speakers will discuss hypertension, diabetes mellitus and antibiotics in infectious disease. Program Chairman S. F. Guiang, M.D., Burlington, may be contacted for additional information. There is no tuition.

MEDICAL EDUCATION . . . The IMS Committee on Medical Education and Hospitals will meet September 6 to consider further ways in which the Society might appropriately become involved in endorsing or accrediting postgraduate medical education activities in the State.

CONTINUES TO SERVE . . . Donald L. Taylor, IMS Executive Vice President, continues to be one of approximately 10 individuals who serve on a special advisory committee to E. B. Howard, M.D., Executive Vice President of the AMA.

IRAG OFFICERS . . . Kenneth Barrows of Des Moines has been re-elected chairman of the Iowa Regional Advisory Group. Other IRAG officers elected recently are J. H. Sunderbruch, M.D., Davenport, vice-chairman; J. E. Tyrrell, M.D., Manchester, finance officer, and B. F. Brown, Iowa City, secretary. At-large members serving with the officers on the IRAG executive committee are Marilyn H. Harper, M.D., Fort Madison, Paul M. Seebohm, M.D., Iowa City, R. Keith Simpson, D.O., Des Moines, Howard Benshoof, Des Moines, and Robert J. Carson, Council Bluffs.

PROFESSIONAL LIABILITY . . . C. H. Denser, Jr., M.D., Des Moines, chairman of the IMS Medico-Legal Committee, conferred in late July with State Insurance Commissioner William Huff and his staff on developments and possibilities in the area of professional liability coverage.

INCREASED USE . . . Use of the Iowa Coordinated Library Network has increased according to recent figures. Requests for literature loans and photostats jumped from 5,655 in 1970 to 6,904 in 1971. Use of the Network's toll-free service line has also increased. For the same three-month period, 198 calls were received in 1970 compared with 379 in 1971.

THREE-YEAR PROGRAM . . . Beginning this July the University of Nebraska College of Medicine will offer a three-year curriculum to its medical students. Students may elect to use a fourth year to complete their studies. An estimated 145 freshmen began class work under the new approach in July.

MEMBERSHIP PLEA . . . Membership in the American Association of Medical Assistants is at a record high of 14,300. Yet in the nation there are an estimated 400,000 additional medical assistants eligible for membership in AMA. Iowa physicians are urged to encourage their assistants to join the state and national organizations.

PROSTATE CENTER . . . The nation's first comprehensive center for the study of diseases of the prostate gland will be established at The U. of I. College of Medicine under the direction of Rubin H. Flocks, M.D. To be named for Dr. Flocks, the special unit will be built and equipped from non-tax funds and will have a 24-bed capacity.

Radiology Window

by DONALD C. YOUNG, M.D.

CASE NO. 5

This 81-year-old white male was seen in the emergency room with a history of increasing abdominal pain of three days duration. The pain was associated with nausea and vomiting. There was no history of prior similar complaints. The abdomen was exquisitely tender and board-like with generalized rebound tenderness and no audible bowel sounds. The admission temperature was 98.8 degrees with a WBC of 10,700, of which 82 per cent were polys. A chest x-ray was normal and the films (Figures 1-A and 1-B) are flat and right decubitis views of the abdomen after the patient voided.

Consider the following diagnoses:

1) Degenerative arthritis involving the lumbar spine.
2) Cholecystitis.
3) Residual urine in the bladder.
4) Constipation.
5) All of the above.

Please select the most likely diagnosis from the preceding list. Turn to page 498 for a discussion of this case and a further radiographic study.

This radiologic feature has been prepared and provided by Donald C. Young, M.D., who is associated with the Department of Radiology at Iowa Lutheran Hospital in Des Moines.

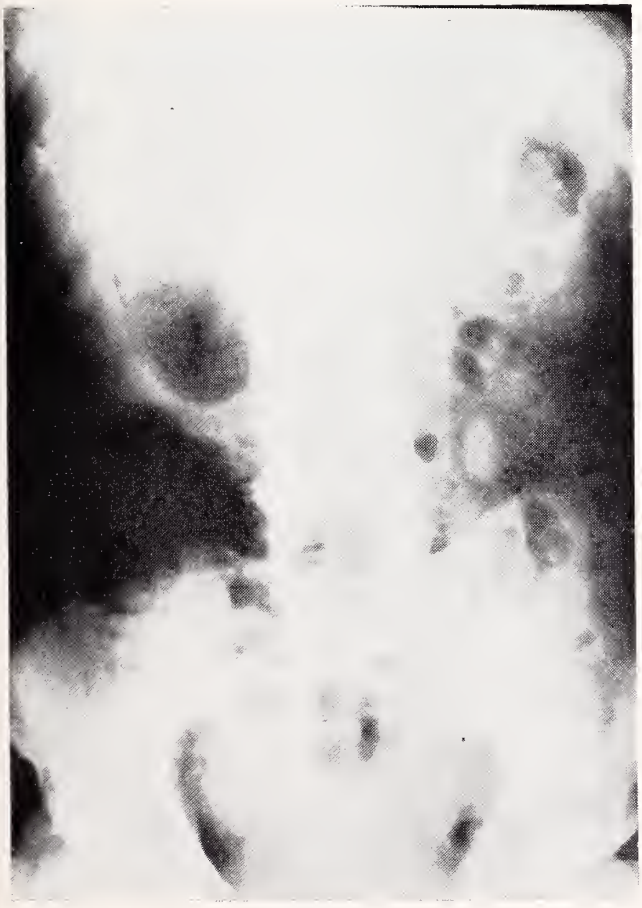


Figure 1-A



Figure 1-B

Educationally Speaking

by RICHARD M. CAPLAN, M.D.

MYTHS THAT GUIDE OUR ACTIONS

Dr. Edmund Pellegrino, a sage observer and an eloquent leader in medical education, recently described some current "myths" which he believes need careful consideration, and perhaps elimination. How do you feel about them?

1) **"The White Knight Myth":** Just as Alice's white knight was prepared for all eventualities but couldn't perform his basic mission, so most current medical school curricula operate vaguely and lack clear goal-orientation with respect to the student's education.

2) **"The Leonardo da Vinci Myth":** Only basic science disciplines teach critical or scientific thinking, and an "inoculum" of it is necessary in all medical students to induce appropriate rigor and analytic sense.

3) **"The Humanities = Compassion Myth":** Study of the subjects traditionally called "The Humanities" makes a student more "human," that is, more compassionate in his relationship to patients.

4) **"The Myth of Clinical Monasticism":** Only in a university hospital is one likely to find rigorous thinking about clinical problems.

5) **"The Myth of the Baronial Complex":** The acquisition of the M.D. degree confers the necessary ability to lead the health team.

Lest you think Dr. Pellegrino is anti-establishment, he also takes pains to debunk these myths of those who are "storming the gates":

a) **"The Faith-Is-Better-Than-Good-Works Myth."**

b) **"The Young-Are-More-Endowed-With-Social-Consciousness Myth."**

c) **"The Intuition-Is-Better Than-Reason Myth."**

d) **"The Good-Doctor-Needs-No-Theoretical-Background Myth."**

Though few of us are as imaginative or articulate as Dr. Pellegrino, all of us ought to weigh carefully the ideas he advances. For history has shown repeatedly how men's actions and fate are so often initiated and provided their impetus by the myths we happen to cherish.

Dr. Caplan is Assistant Dean, Continuing Education, at The University of Iowa College of Medicine.

Continuing Education Courses & Conferences

Please call or write Office of Continuing Medical Education, College of Medicine, for further information on these programs. Telephone 319-353-5763.

Sept. 13-14	Conference on Pediatrics *Iowa Chapter of the American Academy of Pediatrics
Sept. 15-16	Urology Postgraduate Conference *Iowa Urological Society
Sept. 15-17	Medical Care Evaluation Studies in Community Hospitals (Workshop-retreat at Lake Okoboji)
Sept. 19-20	Instrumentation in Clinical Chemistry (State Hygienic Laboratory)
Sept. 22-23	*Iowa Society of Anesthesiologists
Sept. 22-23	*Iowa Academy of Surgeons
Oct. 6-7	Dermatology for the Dermatologist
Oct. 9-12	Intensive Coronary Care Management Course
Oct. 13-14	Postgraduate Course in Psychiatry
Oct. 13-14	*Iowa Psychiatric Society

*Society meeting held in conjunction with postgraduate course.

Unless otherwise specified all courses and conferences are held at The U. of I. College of Medicine, Iowa City.

SCIENTIFIC ARTICLES

Organizing Trauma Care: What Can We Do Now?

ROBERT E. CONDON, M.D.
Iowa City

THE MOST VALUABLE ASSETS of civilized society are its productive citizens, the predominantly younger and middle-aged men and women whose daily work makes it possible for our society to function. Indeed, without productive citizens, society would be unable to exist at all, much less support its children and its senior citizens. Despite obvious reasons for society to expend every effort to preserve and protect productive citizens, the leading cause of death among young and middle-aged men and women has been almost unheralded. Accidents are the most common cause of death of all persons under age 45. Accidental death and disability occurring among people prior to or during their most productive years certainly is the most ignored of our major public health problems.

While heart disease, cancer and stroke—those diseases that commonly bring the final end which faces all of us—have attracted vast amounts of therapeutic effort by the medical profession and vast amounts of funding from the federal government and private health agencies, accidental death as a health problem has gone virtually unnoticed both by the public and by the medical profession.

What are the dimensions of the problem of traumatic death and disability? Last year in our country over 3 million people sustained accidental injuries resulting in need for hospitalization and loss of productive time. Most of these patients eventually recovered from their injuries and were able to resume a productive role in our society. But, nearly 120,000 people died as a result of trauma, and a similar number of people were so severely injured that they were permanently disabled.

What is the cost of trauma on so great a scale? It has been reliably estimated that the direct dollar cost of death, disability and property damage due to accidents is nearly 20 billion dollars a year. Such estimates, of course, ignore such considerations as the pain sustained by accident victims and the hardships and disruption of the lives of their families. These human factors cannot be quantified in terms of dollars, but that does not mean they are any less real. Over a hundred thousand deaths, over three million injuries, over twenty billion dollars in direct identifiable expense occur as a consequence of trauma each year in

Dr. Condon is a professor in the Department of Surgery at The University of Iowa College of Medicine. This paper was presented at the 1972 Annual Meeting of the Iowa Medical Society.

THE SCANLON MEDICAL FOUNDATION/IOWA MEDICAL SOCIETY HAS DESIGNATED THIS ARTICLE AS THE HENRY ALBERT SCIENTIFIC PRESENTATION FOR THE MONTH OF SEPTEMBER, 1972.

TRAUMA IN IOWA, 1970

	All Types	Motor Vehicles
Accidents	186,366*	87,798
Injuries	69,741*	33,111
Disabled	1,838*	871*
Deaths	1,702	948

* estimated

Figure 1. Incidence of accidents and sequelae during 1970 in Iowa.

this country—frankly, such figures are difficult to fully comprehend. They are simply too vast.

Perhaps it will help to better understand the trauma care problem by limiting our focus to our immediate environment and to our more immediate concern. Let us look at statistics from the State of Iowa (Figure 1). In 1970 in Iowa, there were nearly 200,000 accidents of which 88,000 involved motor vehicles. As a result of these accidents, over 1,800 people became permanently disabled and 1,702 died. Nine hundred and forty-eight of these deaths were due to motor vehicle accidents; a further 871 Iowans were so maimed in automobile accidents that they became permanently disabled. Thus, over 3,500 Iowans died or were so disabled as the result of trauma in one year that they were permanently lost in any future role as economically productive citizens. Half of this annual carnage and waste occurred as a result of motor vehicle accidents, and it is on the motor vehicle trauma problem—and steps toward its solution—that I want to place major emphasis in this review.

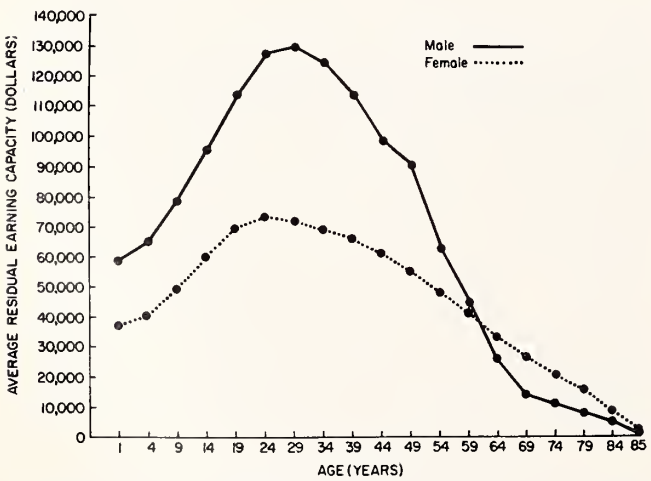


Figure 2. Mean residual earning capacity in dollars for men and women at various ages.

How much does it cost Iowa to have 1,800 of its citizens killed or permanently disabled each year as a result of motor vehicle accidents? Figure 2 shows the earning capacity of average men and women at various ages. The typical driver involved in an automobile accident in Iowa is a man between 25 and 34 years of age, the period of maximal economic productivity of a young adult. An average 30 year old man has a future earning capacity of about $130,000. Should he die or become permanently disabled, that $130,000 represents money that will never be earned. In addition to the direct loss of earning capacity, it is reliably estimated that an equal additional amount is lost to society through hospitalization and medical care costs, and by the costs of the insurance or welfare support required to partially replace the lost earning capacity of the dead or disabled worker.

An estimate of $250,000 as the total cost to society of the death or disability of each trauma victim is not unrealistic. If you consider this estimate overly generous, remember that a future earning capacity of $130,000 at age 30 represents a mean annual wage of only about $3,700 a year. Even assuming a lower overall average cost of two-thirds of this estimate, trauma still costs Iowa on the order of 560 million dollars a year in direct and indirect cost. This is a staggering amount of money. Could we possibly avoid some of this loss? In order to answer that question, let us begin by looking at our present system of caring for automobile accident victims in Iowa (Figure 3).

The most charitable description of our present arrangement of trauma care is to label it a "non-system" which functions about as follows. A vehicle and its driver become involved in an accident. Following the accident, there is a variable time lag until the accident is discovered. If the accident occurs in daylight hours on a busy city street, discovery and notification of the police department are usually almost immediate. On the other hand, if the accident occurs on a lonely rural road in the early hours of the morning, it may be many minutes, even an hour or two, before the ac-

cident is discovered and the authorities are notified.

After another variable time lag, medical aid arrives at the scene (Figure 4). As a result of the accident, a spectrum of trauma has been created ranging from trivial injuries of no great significance through more serious injuries, some of which are of life-threatening proportions, to those whose injuries are so severe that they die immediately. Who cares for these injured victims?

The ambulance attendants usually have been trained in first aid techniques but often do not have the special skills required to safely extract from a crashed automobile patients with potential spine or major visceral injuries. The ambulance carries oxygen, but usually no other means of resuscitation. The vehicle itself is, more often than not, a sleek version of a station wagon. Usually those victims who are still alive and have the most severe injuries receive priority transportation to the nearest hospital. However, reports of accidents in which victims with only trivial injuries or, conversely, those already dead, were transported in preference to severely injured victims are recorded with sufficient frequency that we cannot take it for granted that those most in need of expert care now always receive it on a priority basis.

The hospital to which the accident victim is transported usually is the nearest facility, regardless of the resources available at that institution. Only rarely will an ambulance attendant bypass a smaller hospital to take an accident victim any significant distance to a larger facility. At the hospital the accident victim is joined by a physician who assesses the extent of injury and undertakes immediate resuscitative measures directed at restoring and maintaining cardiorespiratory function and controlling external hemorrhage. Some accident victims have such extensive injuries that they cannot be resuscitated, but, for the majority, resuscitation to a stable state is achieved expeditiously and then definitive treatment of their injuries is undertaken.

The outcome of definitive treatment depends upon many complex factors, among which are the extent and nature of the victim's injury, the capacities of the treating physician and the facilities provided by the hospital in which

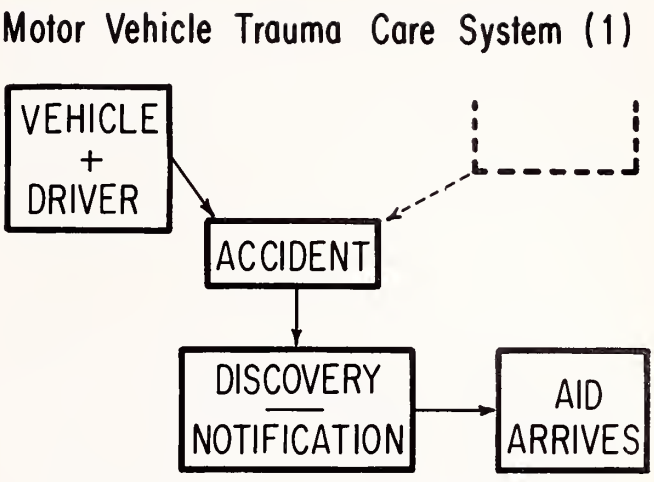


Figure 3. The present accident-trauma care "system."

treatment is carried out. Under not infrequent circumstances, the nature of the victim's injury is such that definitive treatment cannot be completed at the hospital to which he is first taken after the accident. These injured patients subsequently must be transported to a second hospital at which definitive treatment is undertaken. A delay in the provision of optimal definitive treatment may be associated with increased rates of death and disability.

How much improvement can we expect to make in our present system of trauma care? If we are able to deliver improved trauma care, how much expense can we justify to maintain an improved system? Any estimates of the results to be obtained by an improved trauma care system are only as accurate as

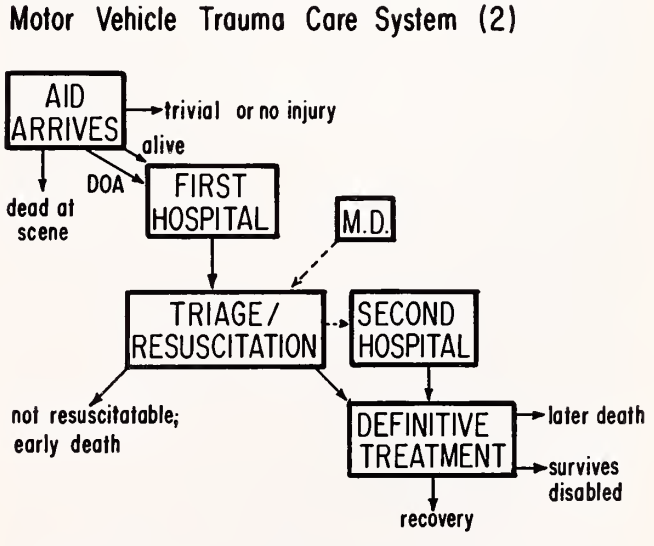


Figure 4. The present accident-trauma care "system" (continued).

the data on which those estimates are based. A study of the effects of an improved trauma care system has been conducted in Michigan by Frey and his colleagues.[1] That study indicated that the availability of more optimal trauma care might have resulted in an 18 per cent reduction in overall death and disability following accidents in Michigan. This estimate was arrived at by careful study of such factors as the nature and extent of injury, and the timeliness and appropriateness of therapy. Unfortunately, no comparable information is available concerning accidents in Iowa. Gathering such epidemiologic data is something we can do, and should do *now,* as the first step in reorganizing our trauma care delivery system. Such epidemiologic data would form the basis for making an economic determination about the probable value of organizing a state-wide trauma care system.

I believe that the approach used in the Michigan study could be applied fruitfully in Iowa, and that we could expect a better record of improvement than that of Michigan. Iowa is a predominantly rural state. Highway death rates are higher in rural states such as ours than they are in more urbanized states, due to the time lag which occurs in rural areas both in discovery of an accident and in transportation of its victims to an appropriate hospital facility. Elimination of such delays should be possible. I believe that a properly organized system of trauma care in Iowa might yield as much as a 25 per cent improvement in our present rates of accidental death and disability.

What might the organization of a state-wide trauma care system mean in economic terms? Again, although I will be using dollar estimates in an attempt to indicate the probable value of such a system, I am not overlooking the non-quantifiable costs that accompany accidents: the suffering of the victims, the disruption of their families and interference with the normal conduct of their employers' business are other important costs of every accident. If we accept the estimate of a 25 per cent improvement in death and disability rates as possible and we limit our economic estimates only to motor vehicle accident victims—even though they comprise only half of the total cases of trauma in Iowa—then we might hope to reduce traumatic deaths in Iowa by 225 each year and severe disability by a like amount. In other words, a more effective system of trauma care in Iowa might salvage 450 people each year and restore them to an economically productive state.

These 450 salvaged individuals represent an economic gain of about 40 million dollars in realized potential earnings and decreased need for the provision of services by tax-supported governmental agencies. Although the regained productivity must be amortized over an average life span of 30 post-accident years, there would be an immediate savings in the first year of about 1.3 million dollars. Each year that the system continued to operate, there would be a similar increment in realized savings. If a trauma care system can function at a cost of less than 1.3 million dollars in additional expense during its first year, or of 2.6 million dollars the second year and so on, then it is an economically viable proposition. A more exact actuarial estimate depends on more refined data, but there is no doubt that the benefits which might accrue from improvement in our trauma care system would far outweigh both the initial capital costs to get the system underway and the annual costs of maintaining the system.

Where can our trauma care system be improved? Vehicles certainly can be improved in crashworthiness by the addition of energy-absorbing bumpers and of roll bars to prevent crushing of the roof. Active restraint of occupants can be improved by the use of inertia reels combined with bilateral shoulder harnesses. Passive restraint systems, such as the air bag, may prove to be even more effective. The nature of the driver can be improved through appropriate education in defensive driving and by eliminating drunk drivers from our highways through imposition of appropriately harsh and rigidly enforced penalties. Discovery of accidents in rural areas could be vastly improved by incorporation in motor vehicles of an automatically triggered alarm system coupled with recognition and homing systems to be utilized by police departments.

Although we as physicians may have a special role to play in bringing our expertise and advice to bear in these areas of accident prevention, our responsibilities and concerns are those shared in common with all of our fellow citizens. One thing that we can do in this arena, and should do *now,* is to initiate and

support activities to increase public awareness of the magnitude of the trauma problem and the elements toward solution of the problem in which all citizens might become engaged.

It is the area of trauma care delivery during the period from arrival of medical aid at an accident scene to the completion of definitive treatment (Figure 4), in which we have a special professional responsibility. This is also the area in which we can most rapidly influence the organization of trauma care to improve the prognosis for death and disability experienced by accident victims in Iowa.

One thing that we can do *now* is to make sure that an appropriate ambulance arrives at the scene of an accident. It must be recognized that there is a great distinction in function between transportation of patients in stable condition to or from a hospital, and the provision of resuscitation at an accident scene as well as transportation of injured patients who are not in stable condition and who require active, continuous treatment during transportation. For the transportation of stable and uncomplicated patients, the hearse-type ambulance serves reasonably well and provides such transportation at a reasonable cost. Such an ambulance, however, is totally inappropriate and inadequate to the needs of the victim of severe injury.

The ambulance which answers an accident call must be a tall, van-type vehicle to permit its emergency medical technicians to stand to carry out resuscitation of accident victims. The vehicle should be capable of carrying two or three patients at once, and should have radio equipment to provide communication with the police and with hospital Regional Trauma Centers. These trauma ambulances should be equipped with oxygen, respirators, endotracheal tubes, monitoring gear, intravenous fluids and the means for their administration as well as appropriate splints and dressings. One of the things we can do now is to encourage our state legislature to rewrite our ambulance licensing statutes to insure that a distinction is made between the simple transportation function and the more exacting requirements of transportation plus resuscitation needed to answer a major accident call.

Another important thing we could do in relatively short order is to make sure that the attendants who arrive with the ambulance at an accident scene are fully trained emergency medical technicians, capable of early management of major traumatic injuries. Two such technicians, in addition to a driver, should man each trauma ambulance. They should be trained to identify and treat airway obstruction and cardiac arrest, and must be skilled in the techniques of endotracheal intubation, tracheostomy and cardiac massage. They should be able to identify open chest injuries and convert them to closed wounds. They should be trained to control external hemorrhage and should be capable of treating shock with intravenous fluids. They should be able to splint fractures and dress soft tissue injuries. They must be skilled in extracting and transporting accident victims with probable spine injuries, using appropriate restraints and splints.

The training of such emergency medical technicians could well be undertaken by our community junior colleges. Indeed, such programs already exist in some Iowa communities. The emergency medical technicians would function within a state-wide system of Regional Trauma Centers. In providing initial resuscitative care at the scene of an accident, the emergency medical technicians would be under the supervision of and in constant radio contact with the physician in charge of the Regional Trauma Center. The arrival at the scene of an accident of an ambulance van, manned by trained emergency medical technicians, would allow triage and resuscitation to be initiated at the accident scene rather than at the hospital. Resuscitation could be largely completed during the period of transportation from the accident scene to the hospital Regional Trauma Center (Figure 5).

Next, let us look at our hospitals with a view toward improving the delivery of trauma care. It is obvious that not every hospital in Iowa is, or should be, equipped to deliver the full range of care that may be required by every accident victim. Where needed facilities are not available currently in a community, means will have to be found to provide them. In those situations where facilities are duplicated at more than one hospital in a community, such redundancies probably will need to be reduced commensurate with demonstrated need. The provision of community hospital facilities of an appropriate degree of complexity without duplication and waste will require re-

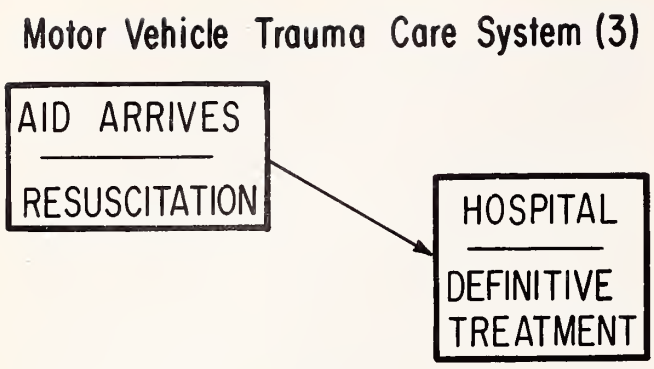


Figure 5. Idealized functional concept of proposed new system of trauma care.

gional planning by hospitals, their professional staffs and their administrators. Such proposals have been made.[2, 3] The key feature is the development of a series of Regional Trauma Centers, taking into account the distribution of surgical specialists in practice in Iowa.

Insofar as possible, any new scheme of trauma care in Iowa must be based on current patterns of practice. Although there is a marked tendency for physicians to practice in our larger communities, these communities are reasonably evenly distributed throughout the state. We can take advantage of this current pattern of professional practice, using those communities in which specialist physicians are already located as nuclei around which to organize Regional Trauma Centers. Experts in some surgical specialties, such as neurosurgery, are very unevenly distributed throughout the state. A neurosurgeon is not located in each region, yet neurosurgical skills must be available to every trauma victim. The answer to uneven distribution of highly specialized surgical expertise lies in an appropriate combination of two approaches: (1) Transportation of some trauma victims over longer distances to those communities where needed expertise is available, and (2) Training of surgeons presently practicing in local communities in the elements of trauma care within such specialties as neurosurgery so as to permit early definitive treatment of a restricted range of appropriate lesions by these community surgeons. This principal of trauma care applies to every highly specialized area.

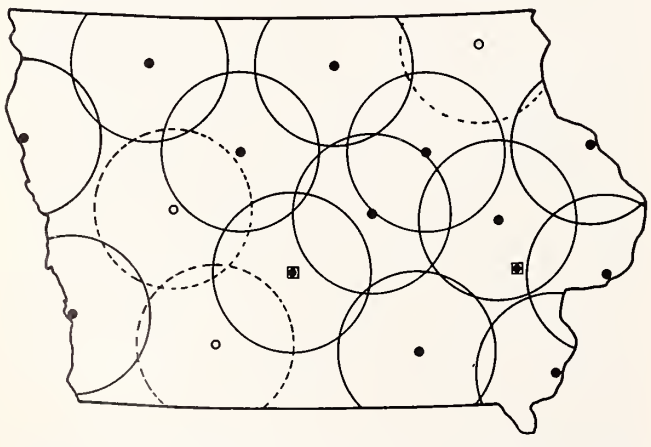


Figure 6. Regional Trauma Centers are proposed for 16 Iowa Communities. The circles indicate a radius of 50 miles from each Center. Solid dots designate those communities in which present resources are sufficient to permit a Regional Trauma Center to function almost immediately. Open circles identify those communities in which additional resources are needed. Open squares designate centers of third-echelon referral resources.

Based on the distribution of physicians in Iowa, Regional Trauma Centers might be developed in 16 communities (Figure 6). Each of these Regional Trauma Centers would be capable of providing the following:

1) Medical and paramedical coverage around the clock, 7 days a week, capable of delivering comprehensive care to a critically injured patient. Specialty consultants, particularly in neurological and cardiothoracic surgery, must be available.

2) All personnel, including nursing and other supporting personnel, would be trained in resuscitation techniques and other life saving measures.

3) Complete emergency and operating rooms, a blood bank, X-ray facilities and a well developed clinical laboratory service must be constantly ready.

4) A specific hospital area should be set aside for the care of trauma patients. This facility could be adjacent to, but separate from, the usual hospital "emergency room," which today functions as a night and weekend "walk-in" clinic.

The Trauma Center Director would be a physician experienced in trauma management. The nursing and paramedical personnel of the trauma unit would be permanently assigned to the Center. The Regional Trauma Ambulance Service would be based at this Center, although sub-units and peripheral garaging facilities could be created in areas where this was appropriate to the delivery of prompt trauma care. A fully coordinated communication system between the Regional Hospital Trauma Center, all of its ambulances, the police and other emergency care facilities would be established.

The Regional Trauma Center Director might be a surgeon who also had other responsibilities for health care delivery in his community, or the Director might be retained on a fulltime basis, depending upon local circumstances. However local arrangements are worked out, the Regional Trauma Center Director should receive adequate recompense for time invested in management of the Unit. If there are insufficient numbers of physicians in the community skilled in trauma management, training of community physicians would need to be provided in the Regional Trauma Center by appropriate consultants. When all of the new elements which I have described are fully functioning, our system of trauma care will be both simplified and more effective (Figure 5).

The most difficult problem is not how to define a new Regional Trauma Center. The problem will be to achieve its creation through local pooling and coordination into a single functioning unit of all of a region's trauma resources. Sharing and pooling through voluntary action among local hospitals has proven difficult to achieve in some areas in the past. I believe that if we, as physicians, do not take the initiative, and together with our colleagues who administer our community hospitals, do not organize ourselves on a regional basis, then the eventual solution to the problem of delivering better trauma care will be provided for us on a regional basis by other agencies acting at the behest of government. We have now, today, in Iowa, an opportunity to organize a first class trauma care delivery system with full professional input.

I should make it clear that in advancing this concept, I am not making a particular brief for any of the centers provisionally designated, nor for all the details which I have listed as characterizing a Regional Trauma Center. What is important is the principle of regional, community-based planning for trauma care. In some communities, acceptance of this principle will represent a departure from current practice.

Let me review what we can do *now* to provide improved trauma care in Iowa. First, we can start at once to gather accurate epidemiologic data about the nature of trauma in Iowa, the locations in which trauma occurs and the relationship of these elements to regional facilities for trauma care. Second, we can begin to assign trained emergency medical technicians to our ambulances so that triage and resuscitation can be begun without delay at the accident scene. Appropriate legislation is required to define the functions and limitations of emergency medical technicians and to provide them with a licensing procedure. Third, we should recognize that ambulances answering a call to the scene of a major accident must be able to provide more than simple transportation. These ambulances must be vehicles which are capable of having continuing resuscitative efforts carried out within them during transportation from the accident scene to the Regional Trauma Center. Our laws defining ambulance functions and standards of ambulance service require rewriting. Fourth, we can begin community discussions about creating a system of Regional Trauma Centers capable of providing expert definitive care of all major injuries. The numbers, locations and services to be provided by each of these Regional Trauma Centers will have to be worked out and will depend, to a large degree, on the epidemiologic data which we gather regarding trauma in Iowa. The important principle, however, is creation of these centers as the result of cooperative, community-based efforts which provide for a pooling of trauma care resources in a single Center to service an entire region. Lastly, we can work to increase public awareness of trauma as a public health problem.

Through these comments I have justified the creation of a state-wide trauma care system in Iowa on the basis of economics—the economic loss that results from trauma and the economic gain to be derived from an improved system of trauma care. But, we must not lose sight in future discussions of this subject, of the very real and important human values to be sustained, salvaged and restored as a result of improved trauma care in Iowa. We must keep in mind that the human dividends are fully as important, if not more important, than the dollar dividends to be realized as a result of improved trauma care in Iowa.

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Carotid Sinus Nerve Stimulation, Clinical Applications and Case Report

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THE PHYSICIAN'S TASK is often a discouraging one. Many of his therapies are palliative, few curative, and his ultimate mortality is a tragic 100 per cent. Medics, therefore, are constantly searching for new ways to abolish or relieve man's suffering, a product of his existential dilemma. The gamut of therapies is legion. Their history often spans many years and one is forced to lean heavily on a trite aphorism—"There is very little new under the sun."

When one considers that unique structure, the carotid sinus, one finds its therapeutic potentials ancient, fascinating, exciting and varied. Its efficacy runs the gauntlet from paroxysmal tachycardia to intractable hypertension. One of the authors recalls a young woman, incapacitated by uncontrollable and repetitive bouts of atrial paroxysmal tachycardia. She was seen in several nationally respected diagnostic clinics, prescribed a host of drugs, finally relieved by a transaxillary dorsal sympathectomy. How rewarding to have been able to offer her a carotid sinus stimulator rather than the more formidable procedure she underwent with resultant recurrent pleural effusion. Reviewing the history and the drama of the carotid sinus nerve we became interested primarily in its efficacy in a late fortyish man with unmanageable angina pectoris who had undergone a previous coronary arteriogram and a left internal mammary implant.

At the time of the preparation of this article, Dr. Dennison was Chief of Cardiology, Veterans Administration Hospital, Des Moines, and Associate in Medicine, Indiana University Medical School. He has since left that position and is now residing in Panora. Dr. Lulu is Section Chief, General Surgery, VA Hospital, Des Moines, and Clinical Associate Professor of Surgery, University of Iowa College of Medicine.

HISTORICAL BACKGROUND

Some basic understanding of the carotid sinus reflex echoes back to antiquity since the semantics of the word "carotid" stems from the Greek. The Greek karotis comes from "karos" which means "deep sleep" (Dorland's Medical Dictionary, 23rd edition, page 234). Serapion,[1] a Syrian who lived in the ninth century, was said to have compressed it for relieving headache. History records its use for the relief of a kaleidoscopic group of symptoms, some not anatomically and physiologically defensible. In 1799, in England, C. H. Parry,[2] writing about Syncope Anginosa, described the slowing of the pulse rate by "strong pressure on one of the carotid arteries." He even produced syncope (deep sleep), suggested a correlation with angina pectoris, but curiously enough did not employ carotid sinus pressure to relieve anginal distress. The afferent limb of the carotid sinus nerve reflex, a branch of the glossopharyngeal nerve, originates in the region of the carotid artery bifurcation. It was initially described and named by Knoll in 1885. We owe a profound debt to Dr. Hering whose classic experiments in the early 1920's clearly delineated the role of the carotid sinus in the maintenance of blood pressure, and who defined the physiologic responses and anatomic pathways. At one point he employed the name the "intercarotid nerve of DeCastro." In 1865, J. Czermak[3] of Jena, Germany, recorded his own left radial artery pressure with a Marey's aneroid capsule sphygmography while pressing on the right carotid sinus with his finger. It is unfortunate that he never experimented with his left carotid sinus or reproduced his experiments on others.

ANGINA PECTORIS

The earliest record of carotid sinus pressure for the relief of angina pectoris was made by

S. Peller[4] in Austria. Writing in a German publication in 1922 he noted that ". . . a pressure for 5 to 12 minutes led to the termination of the attacks of angina and to a reduction of pulse rate and blood pressure." Later, in 1928, S. Wasserman[5] supported this observation that carotid sinus pressure may relieve anginal pain. In this country, the distinguished cardiologist, S. A. Levine,[6] mentioned the diagnostic and therapeutic value of carotid sinus nerve stimulation in the 1958 edition of his classic textbook, CLINICAL HEART DISEASE. But it was not until 1961 that Lown and Levine[7] reported their results in many hundreds of patients. Their experience indicated that the abolition of angina pectoris is almost invariably associated with slowing of the heart rate. In 1967, Eugene Braunwald[8] and associates reported the first use of electrical stimulation of the carotid sinus nerve (CSN) for prevention or relief of angina pectoris. They employed a radio-frequency device with implantable leads and receiver, activated when necessary by an external transmitter. This was an offshoot of an earlier technique for continuous stimulation in treating essential hypertension. It is curious to point out that both we and other authors have been intrigued by the dissociated relief of angina on stimulation of the carotid sinus nerve, yet the ischemic electrocardiographic pattern persists.

HYPERTENSION

The enormously brilliant work of Heymans[9] in 1933 brought a new understanding of the physiology of the carotid sinus nerve, the concept of the "stretch receptors" or "baroreceptors" and their relationship to hypertension. It also brought its investigator a much deserved Nobel prize. The bilateral sinus nerves transmit to the medullary vasomotor centers action potentials which originiate in the "stretch receptors" of the carotid sinuses. These baroreceptors are stimulated by the mean arterial pressure and, more particularly, by the rate of rise of pressure within the organs. Thus, an increase in intraluminal pressure within the baroreceptor reflexly lowers arterial blood pressure, induces bradycardia, decreases cardiac output, and diminishes venous return.

It was only a matter of time, knowledge, and logic for someone to suggest the implication of the carotid sinus reflex as a factor in the persistence of elevated blood pressure. Thus, in 1956, McCubbin, Green, and Page[10] published on "Baroreceptor Function in Chronic Renal Hypertension." Warner,[11] in 1958, proposed electrical stimulation of the carotid sinus nerve as a method of producing hypotension. Indeed, he effected a decrease in systemic arterial pressure in normotensive dogs for periods up to 90 minutes. Next, the effects of electrical stimulation of this intriguing nerve in hypertensive animals were first reported by Griffith and Schwartz[12] in 1963. One year later,[13] these two investigators subjected their first patient to chronic electrical stimulation of the CSN as a method of reversal of renal hypertension. To avoid professional chauvinism, one must equitably report that Moller,[14] in 1942 and later Carlsten,[15] in 1958, European scientists, had struck the touchstone with their work. Moller had demonstrated that local massage of the carotid sinus was effective in lowering blood pressure in hypertensive patients. Carlsten and associates noted that electrical stimulation of the CSN in normotensive man is accompanied by an acute decrease in pressure. Continued accruement of knowledge had suggested that carotid sinus nerve stimulation has a place in the management of advanced hypertension for patients who experience intolerable side effects related to drugs, for accelerated hypertension moving into the malignant phase, and possibly for some patients with advanced hypertension associated with toxemia of pregnancy.

PAROXYSMAL SUPRAVENTRICULAR TACHYCARDIA

For years clinical cardiologists have employed manual compression of the carotid sinus nerves as a bedside technique for the differential diagnosis and also conversion to normal rhythm of the various supraventricular tachycardias. Occasionally we have been faced with incapacitating, refractory, and frequently repetitive episodes of paroxysmal supraventricular tachycardia. Resorting to various procedures to interrupt the dorsal sympathetic nerves has been necessary. In 1961, Wilkinson, Bryant, and Orgain[16] of Duke University discussed this taxing problem. An interesting breakthrough, as a byproduct of CSN, came in 1969 when Braunwald, *et al*[17] successfully treated such a case by electrical stimulation of the sinus nerve. Braunwald reasoned that such an approach would be valid since it depresses

(as in angina pectoris) the three main determinants of myocardial oxygen consumption: namely, heart rate, wall tension in the ventricle, and the contractile state of the myocardium. On the basis of Braunwald's success an additional case was treated by Cantwell, Weaver, and Fletcher[18] who felt that the negative response to a beta adrenergic blocker, propranolol, made it unlikely that cardiac sympathectomy would be effective. Thus, the therapeutic horizon for electric stimulation of the carotid sinus nerve has broadened.

CASE REPORT

Mr. L. V. is a 49-year-old, white, single male who retired for medical reasons two years ago from the sanitation department of an Iowa community. He was admitted to the Veterans Administration Hospital, Des Moines, Iowa on September 14, 1970 and discharged on October 30, 1970. At a previous admission in November of 1968 he was evaluated because of intermittent claudication on walking a half a block and also angina of effort. At this admission he gave a history of a myocardial infarction in 1959. Therefore, both coronary angiography and translumbar angiography were deemed advisable.

On December 4, 1969, a translumbar aortic angiography was performed and revealed the abdominal aorta as markedly irregular and appeared to contain numerous plaques. Similar irregularities were seen in the common iliac arteries. The internal iliac arteries were also narrowed. The common femoral vessels appeared to be normal in calibre and circulation into the upper portion of the extremities was well visualized. On January 23, 1969, coronary arteriography was carried out and revealed a block in the left main coronary artery just distal to its takeoff, in addition to extensive diffuse disease. Subsequent to these studies, the patient underwent an implantation of the left internal mammary artery into the left ventricular myocardium closely approximating the obviously diseased left anterior descending branch. Also a left dorsal sympathectomy was done. The postoperative course was uneventful.

The patient returned to the hospital two years later on September 17, 1970 complaining again of ischemic distress in the legs, but primarily of classical angina of effort described as tightening and pain in the substernal and left precordial regions if he walked too fast or became excited. He required 15 or more nitroglycerine tablets a week and stated that the angina often preceded or occurred at the same time as the calf claudication. He further reported that the anginal distress had a crescendo quality and had increased over the previous 2 to 3 months. In the past he experienced angina decubitus but this had been infrequent prior to admission. During the interval between the two hospital admissions, he had remained on Isordil Tembids 40 mgm b.i.d. as well as Lanoxin 0.25 mgm daily. The patient was admitted to the Surgical Service and cardiac consultation requested. The findings of this consultation indicated the following features: (1) arteriosclerotic heart disease, (2) history of essential hypertension, not present now, (3) ancient myocardial infarction, (4) crescendo or pre-infarction angina pectoris, (5) associated neuromuscular or radicular pain involving the old thoracotomy incision, (6) intermittent claudication due to arteriosclerosis obliterans.

He was transferred to the Special Cardiac Unit where detailed studies were carried out including the circulation time which was normal, oscillometric studies, electromyographic study, a repeat translumbar aortogram, lipid phenotyping which revealed him to be Type IV (Frederickson) and detailed blood chemical evaluation. A glucose tolerance test did not indicate diabetes mellitus.

In view of the previous diagnostic studies and surgical procedures which also included a left dorsal sympathectomy and internal mammary artery implant in the face of incapacitating crescendo angina pectoris and after in-depth evaluation, it was the conjoined opinion of the Medical and Surgical Services that he might well be helped by the implantation of an angistat (Carotid Sinus Nerve Stimulator, Medtronic). On October 5, 1970, the procedure was carried out and, except for rather frequent postoperative ventricular premature beats which were controlled by Lidocaine drip, the course was uneventful. Oral procaine amide was also prescribed for a short period and then he was ultimately placed on the conventional combined treatment for angina pectoris consisting of Isordil and Inderal (propranolol).

On October 26, 1970, using telemetric moni-

toring, the patient was subjected to stress and, after the production of anginal pain, the carotid sinus nerve was activated for 15 seconds. On two occasions there was a drop in heart rate of 10 beats a minute and a drop in systolic blood pressure of 10 to 18 millimeters with complete relief of anginal pain. The patient was given instruction in the use of the stimulator, and a helpful Medtronic booklet for patients. He was discharged on Isordil 10 mgm 4 times a day before meals, Lanoxin 0.25 mgm one a day, Inderal 10 mgm 4 times a day. A low sodium, low animal fat and low cholesterol diet was advised and explained to the patient. He was further asked to avoid simple sugars

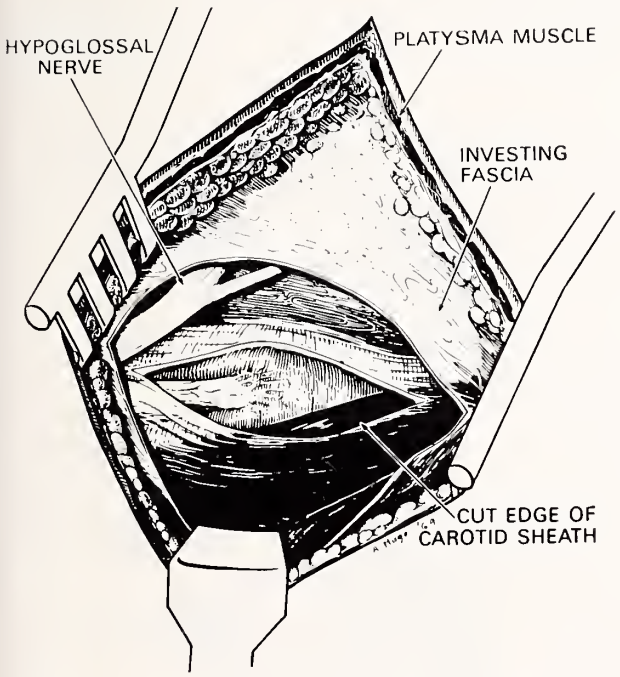


Figure 2. The skin, platysma, and cervical inverting fascia have been retracted exposing the carotid sheath which has also been incised to expose the carotid bifurcation.

and sweets. Other medications consisted of a mild calmative agent and also Atromid S, 500 mgm 3 times a day.

His course has been satisfactory with the patient making a trailer trip to Arizona for the winter and being remarkably free of angina pectoris except for unique occasions such as romping with his dog. Recently the patient was asked to come in for a 9 months postoperative check-up. He reported that he had used only 5 nitroglycerine tablets since the operative procedure. He employed the carotid sinus stimulator not over 4 times a day. The patient expressed pleasure with the angistat and complained only of peripheral arterial insufficiency.

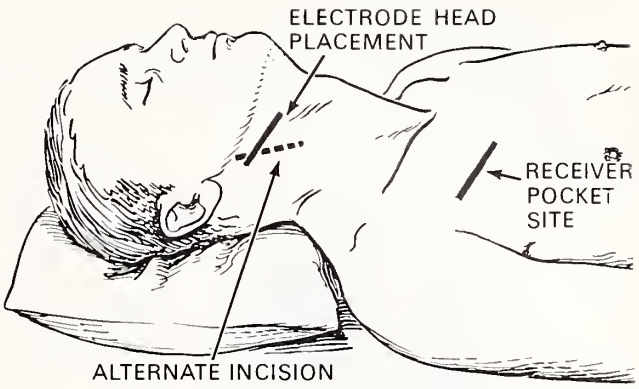


Figure 1. Incisions employed for implantation of the CSNS. The transverse neck incision is preferred for cosmetic reasons.

OPERATIVE PROCEDURE

With the patient in the supine position and the neck extended, and under general endotracheal anesthesia, utilizing pentothal and anectine induction and fluothane and nitrous oxide maintenance, a transverse collar incision was made and carried through the skin, subcutaneous tissue and platysma, elevating flaps similar to thyroidectomy technique (Figure 1). The cervical investing fascia was then incised and the sternocleidomastoid muscle retracted laterally exposing the carotid sheath which was opened and the carotid arteries identified and isolated (Figures 2 and 3). The

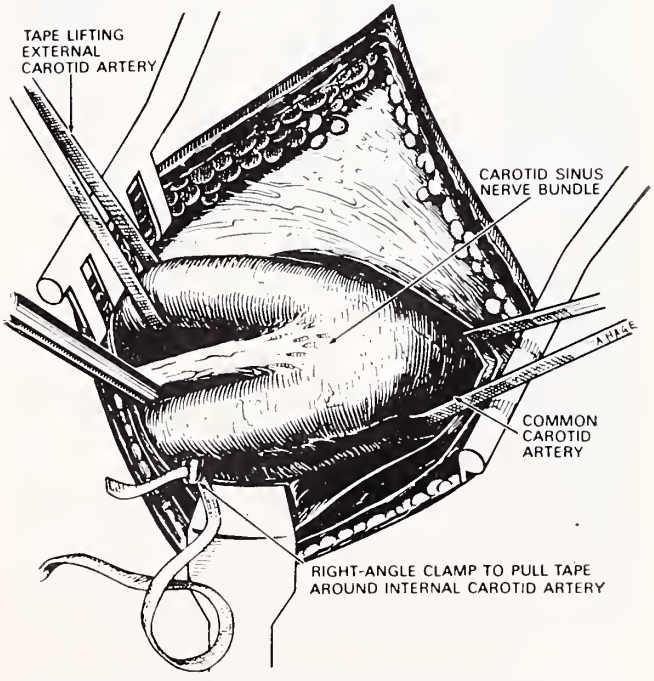


Figure 3. The common, internal and external carotid arteries are isolated and controlled with umbilical tape.

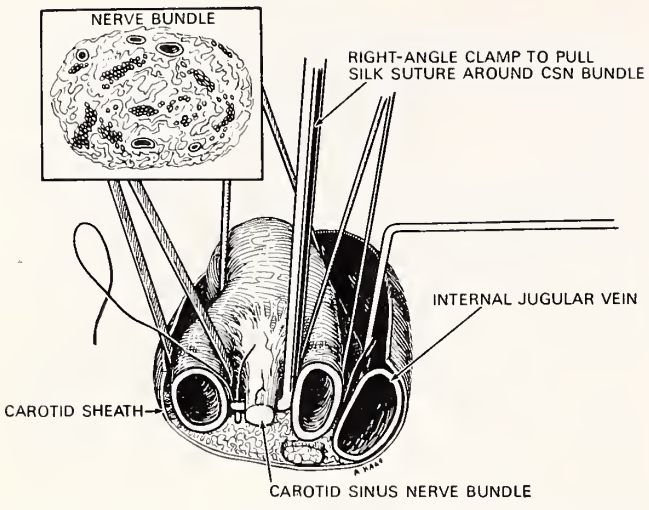


Figure 4. The carotid sinus nerve bundle is carefully dissected out of the bifurcation and encircled by a ligature to allow for gentle traction. The insert is a schematic drawing of a magnified cross section of the bundle illustrating the lack of an isolated nerve trunk.

carotid sinus "nerve" is actually a series of nerve bundles supplying the carotid bulb rather than a discrete nerve trunk so that the areolar tissue in the crotch of the carotid bifurcation must be very carefully isolated and surrounded by the sleeve electrode which is then sutured to form a collar around the areolar bundle containing the nerve fibers (Figures 4 and 5). The excess flap containing the electrodes is then trimmed away and the insulated electrode wires tunneled subcutaneously to a second transverse incision made 2 fingers' breadth inferior to the clavicle on the right (Figure 6). These electrode leads were then individually connected to the implantable receiving coil with set screws, medical silastic adhesive applied and a silastic insulating boot slipped over the connections and the boot ligated with non-absorbable ligatures at its proximal and distal ends. Each electrode is individually tested before permanent connections are made to see that an adequate response was obtained, i.e., a blood pressure drop of 10 to 15 mm of mercury and a drop in pulse rate of 5 to 10 per minute (Figure 7).

During the procedure the anesthesiologist should have the following drugs available to administer intravenously to control blood pressure fluctuations and/or cardiac arrhythmias in consultation with the cardiologist who is in attendance: isoproterenol, norepinephrine, phenylephrine, lidocaine hydrochloride, atropine and reserpine. In our particular case only lidocaine was necessary to control premature ventricular contractions.

The excess electrode leads were then coiled into soft loops without angulation following which the wound was then closed in layers with fine nonabsorbable sutures without drainage, and rezifilm applied.

The device was again tested at the completion of the operation at a 3 to 4 volt level and 50 rate with an excellent response (vide supra). The patient was then returned to the recovery room in good condition.

Clinical use of the angistat is not attempted for 3 weeks postoperatively since activation of the unit may provoke postauricular pain,

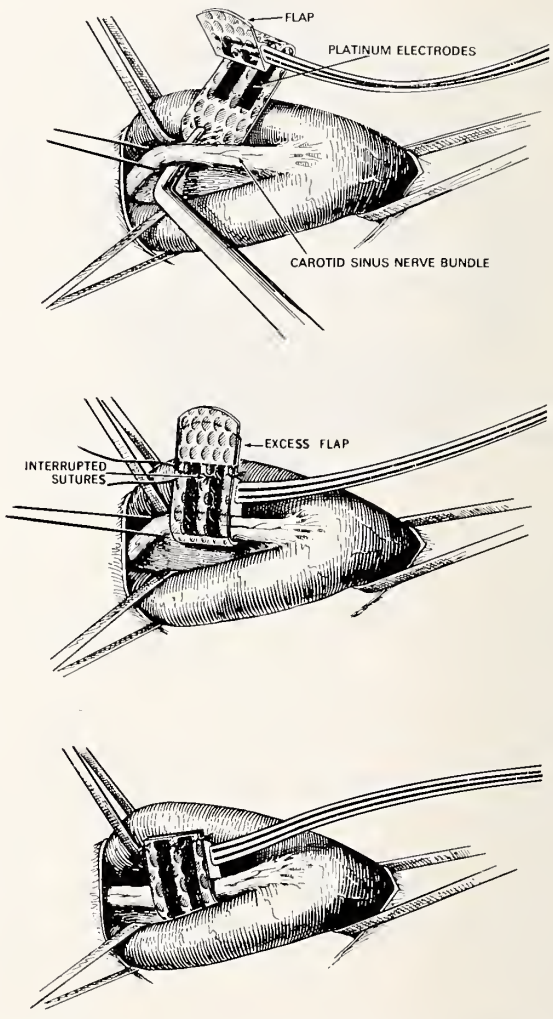


Figure 5. The electrodes are then placed in proximity to the carotid sinus nerve bundle by encircling the bundle with the collar-like flaps which are then approximated with interrupted non-absorbable sutures and the excess flap trimmed off. The CSNS is then tested to determine if there is an effective response (see text).

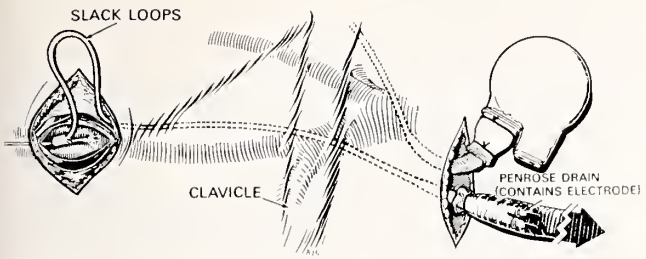


Figure 6. The electrode leads are tunnelled subcutaneously to the chest incision where they are connected to the implanted receiving coil.

cough, and a tingling sensation presumably due to stimulation of afferent nerve fibers in close proximity to the stimulating electrodes.

After 3 weeks the unit is tested to establish the threshold which will optimally lower the arterial pressure which should not drop below 90 mm of mercury systolic.

Since postural hypertension may occur, the patient is warned not to use the stimulator when performing hazardous tasks such as driving an automobile, and to turn it off immediately if symptoms of postural hypotension are noted.

At the end of 3 weeks, our patient was tested on a treadmill while monitored with a telemetry unit. After angina was produced by exercise, the angistat was activated with prompt relief of this anginal pain but with a rather awesome change in the electrocardiogram. The cardiologist's reading was as follows: "An aberrant lead II was connected up using telemetric equipment, and the first recording is with the patient standing at rest. Then he was asked to go over the Masters Two-Step and in very short time, he experienced ischemic distress in the chest. This was borne out by definite depression of the S-T segments in the first recording and with it, a ventricular premature beat made itself known. The calculated rate after this brief exercise and in the presence of pain is 100. He immediately lay down and the first angistat pressure was made. The rate slowed and the surgeon noted a drop in pressure. The rate in the first strip after exercise is 80 and the second strip shows 67. Angistat pressure was made a second time and his total fall in blood pressure from the first application of pressure was 18 points. S-T segment depression still remained, and a delayed recording demonstrated multifocal ventricular premature beats and persistence of the ischemic S-T segment changes."

DISCUSSION

The carotid sinus nerve stimulator allows the patient to stimulate the carotid sinus nerves by means of an external transmitter powered by a 9 volt mercury battery. The transmitter emits a 450 kilocycle signal with a 350 microsecond pulse width at 20 to 80 pulses per second and a pulse amplitude of 1 to 6 volts, the latter 2 characteristics being adjustable.

Stimulation is accomplished by the patient placing the external antenna coil exactly over the subcutaneously implanted receiving coil and turning on the transmitter for 15 to 60 seconds. It may be utilized symptomatically or prophylactically. The patient is cautioned not to exceed 60 seconds stimulation time, and if the pain is not relieved within that period of

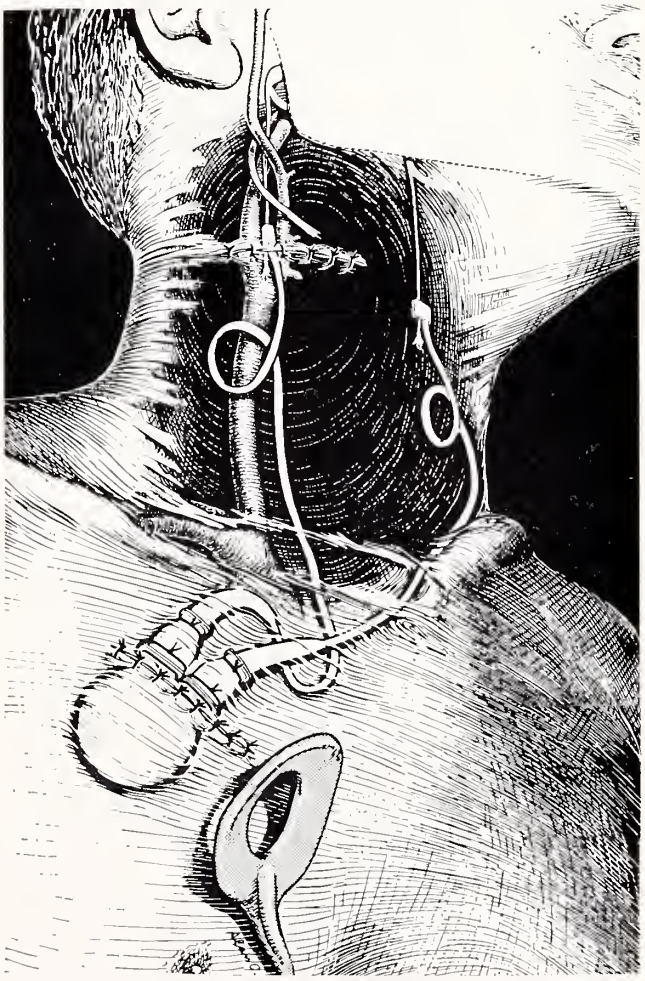


Figure 7. This schematic drawing shows the receiving coil and electrodes in place with the transmitting coil about to be placed in position prior to activating the transmitter.

stimulation, a physician should be called and the use of the stimulator be discontinued.

The inherent difficulty in evaluating subjective symptoms such as anginal pain makes evaluation on the basis of one case rather hazardous. However, with the best objective means available, we feel that our patient did indeed achieve a satisfactory result, and the patient himself is well pleased with the surgery.

It is our belief that this approach has merit but should be used essentially as a "court of last resort" and that strict medical supervision remains the keystone of therapy for angina pectoris with direct surgical attack upon operable lesions as the first surgical priority. The results of the internal mammary artery implant have, in general, been somewhat disappointing. Perhaps the aortocoronary saphenous bypass graft may prove more promising but this needs further clinical and laboratory evaluation before its place in the surgical armamentarium may be accurately defined. The use of dorsal sympathectomy has been shown to be capable of pain relief in our hands but proof of increase in coronary blood flow has not been substantiated nor disproved to date.

We, therefore, conclude that in carefully selected cases, the use of the carotid sinus nerve stimulator is indicated provided its shortcomings are fully appreciated.

SUMMARY

A review of the history and indication for the use of the carotid sinus nerve stimulator in the treatment of angina pectoris is presented with an illustrative case report. The device was effective in our case, and is felt to represent a valuable adjunct in the treatment of carefully selected cases of intractable angina pectoris.

REFERENCES

The references noted in this article are available on request from either the authors or the JOURNAL OF THE IOWA MEDICAL SOCIETY.

CLARIFIES MEDICAID PROGRAM EXPANSION

A new program to provide early and periodic screening, diagnosis and treatment for children in Aid to Dependent Children (ADC) families in Iowa became effective July 1. Its purpose is to identify children who have health problems and to help assure that any further necessary diagnostic studies or treatment are received. This program is a federal requirement in states with a Medicaid program. During its first year the program will concentrate on screening ADC children under age six. By July 1, 1973, the program will be extended to cover all children under age 21 in public assistance families. Physicians have been advised about the new program in an Informational Letter sent by Blue Cross and Blue Shield, the Medicaid Carrier in June.

Elmer M. Smith, M.D., Director, Bureau of Medical Services, Iowa State Department of Social Services, advises there has been some confusion among physicians over the use of the special Screening Invoice which the Carrier has made available. This form is to be used *only* in submitting a claim for a screening examination of a child six years of age or younger. The regular Medicaid billing form, Physician's Monthly Statement, is to be used in submitting claims for services rendered all other Medicaid adults and children, and also for children under age six when a screening examination is not involved. The special Screening Invoice is being used so the county departments can have information on (1) possible abnormal conditions found, and (2) referrals made as a result of the examination. This will help assure the needed further diagnosis or treatment is being received. The special form is also necessary so the Department of Social Services can submit required statistical information concerning the program to the Department of Health, Education and Welfare. For these reasons the Department requests physician cooperation in completing applicable portions of the form.

Fatal Phycomycosis Without Underlying Disease

JAMES C. KING, JR., M.D., and
DONAL DUNPHY, M.D.
Iowa City

A REVIEW OF THE LITERATURE indicates that phycomycosis has, in most instances, been associated with or presented as a complication of other diseases—such as leukemia, malignant lymphoma and disorders associated with acidosis (especially uncontrolled diabetes mellitus). A complex interplay of factors may contribute to the development of phycomycosis: (1) a state of lowered resistance produced by some antecedent disease, particularly disorders of the reticuloendothelial system and metabolic disturbances leading to acidosis; (2) a local tissue defect that the fungus uses as a portal of entry; and (3) an ecologic disturbance brought about by the use of antibiotics, steroids and other agents that promote the growth of fungi or suppress the growth of bacteria, or both.

CASE REPORT

This was the first admission to the University of Iowa Hospitals of this 3½ year old Caucasian male. The patient was admitted because of proptosis of his right eye and swelling of the right cheek.

Approximately seven weeks prior to admission the child, his twin, his other siblings, and his mother journeyed to Texas. The patient was well at this time according to the mother. In Oklahoma the patient developed malaise and fever. He was treated by a physician with antibiotics with resolution of the fever. The child stayed in Texas on a ranch and had contact with cats, dogs and swine, none of whom were known to be ill.

In Texas the patient developed fever and posterior cervical adenitis, was seen by a pediatrician and given antibiotics. The group subsequently returned to Iowa.

Five weeks prior to admission to University Hospitals, the child had a slight temperature elevation; was not himself by the mother's account and she consulted a physician. Subsequent to this it was decided because of a foul, greenish-yellow discharge from the right nostril to hospitalize him and irrigate his right antrum. This was approximately four weeks prior to being referred to the University Hospitals. He was given antibiotics including penicillin but did not improve. Shortly after this he had an open procedure performed on his right antrum, the pathology reports showed no evidence of malignancy, only chronic inflammation.

Approximately two weeks before he was admitted to our hospital proptosis and ophthalmoplegia of the right eye was noted. The patient was subsequently admitted to University Hospitals where he underwent a right Caldwell-Luc procedure and the necrotic antral tissue removed revealed broad, non-septate hyphae. The nasal cultures taken were negative for fungi.

PHYSICAL EXAMINATION

The remarkable findings were proptosis of the right eye, ophthalmoplegia of the right eye and failure of the right eye to react to light. The left pupil reacted to light and the extraocular muscles, fundi, and discs on the left were normal. There was a black crusty discharge from the right nostril. The remainder of the physical examination in this alert, coherent child was unremarkable. (Figure 1)

PAST HISTORY

The patient had enjoyed good general health and normal development.

Dr. Dunphy is professor and chairman of the Department of Pediatrics, College of Medicine, University of Iowa. Dr. King took a residency in pediatrics at The U. of I. and is now assistant professor of radiology, Albert B. Chandler Medical Center, Department of Diagnostic Radiology, University of Kentucky, Lexington, Kentucky.



Figure 1. Appearance of the patient on admission.

LABORATORY EXAMINATION

Repeated urinalyses were unremarkable, no reducing substance being found at any time with appropriate reagents.

The initial laboratory findings were hemoglobin 10 gm, white blood cell count 16,800/cmm, 62% neutrophils, 1% eosinophiles, 26% lymphocytes, 11% monocytes and the hematocrit was 32%. The BUN was 12, creatinine 0.5 mgm%, sodium 137 mEq/L, potassium 6.0 mEq/L, blood sugar 105 mgm%. A lumbar puncture was performed, a protein of 56 mgm% and a sugar of 55 mgm% was found. A bone marrow was interpreted as hyperplastic marrow. PPD and histoplasmin skin tests were negative. Blood cultures, throat cultures, nasopharyngeal cultures, and CSF cultures did not grow out fungi or significant bacteria. Serum protein electrophoresis was performed and the total protein was 7.4, albumin 1.9, globulins, alpha 1 was 1, alpha 2 was 1.9, beta was 1.1, gamma 1.5 and the A/G ratio was 0.34. These were normal values at this hospital.

Roentgenograms of the chest and skull were normal. Roentgenographic studies revealed a destructive process of the right zygoma, and maxilla.

COURSE

Amphotericin B therapy intravenously was started upon completion of our preliminary studies. This 14 kilo child was started on 3.5 mgm/day which was increased to 15 mgm/day in one month. This therapy was given five days per week. The child had daily temperature spikes coinciding with the amphotericin B infusions. The child continued to be alert but the swelling in the right maxillary antrum progressed and the patient had difficulty with swallowing and speech.

Because of increasing difficulty in feeding, a gastrostomy was performed after six weeks in our hospital. The patient's nutritional status improved following the gastrostomy.

The patient received a total of 14 weeks of intravenous amphotericin B in the dosages outlined above. Repeat urinalyses, BUNs and serum potassiums were within normal limits.

Since the child did not appear to be improving, amphotericin B was continued and 5-flurocytosine* was given orally 250 mgm in the morning and 125 mgm in the evening for a total of 375 mgm in 24 hours. The daily dosage of 5-flurocytosine* was increased after five days to 625 mgm given in divided dosages. The patient showed no significant change on this regimen and no evidence of toxicity was noted. However, the examiners thought that the mass did become more clearly delineated. Further diagnostic studies were being carried out (skull x-rays) with the intention of surgical debridement, when the patient had a sudden respiratory arrest and could not be resuscitated.

PATHOLOGY REPORT

At necropsy, the body was poorly nourished with atrophic musculature and diminution in quantity of subcutaneous adipose tissue. Prominent proptosis of the right eye and diffuse swelling of the right cheek occurred. Oral examination revealed displacement of the base of the tongue to the left by indurated, thickened tissue of the right cheek. No gross erosions of skin or buccal mucosa were present. Dark hair over the forearms and calves was conspicuous.

* Courtesy of Hoffmann-La Roche.

Firm, enlarged lymph nodes were palpable in the neck and groin.

The cranial vault contained grossly normal brain and meninges. At the base of the skull, diffuse swelling of the right cavernous sinus was noted. Incision through the sinus meninges revealed complete replacement of the sinus by tan, rubbery tissue which extended into the right retro-orbital area and the internal carotid canal. This tissue completely engulfed, but did not invade, the optic and trigeminal nerves and occluded the intracavernous portion of the right internal carotid artery.

Continuous with the tissue involving the cavernous sinus, the lesion extended into the nasopharynx and the right maxillary sinus, completely occluding the right nares posteriorly. Further extension inferiorly completely surrounded the pharynx and upper esophagus with marked stenosis of these structures. The larynx and upper trachea were firmly adherent to the esophagus, and partial tracheal obstruction was apparent. The inferior border of involvement included the upper esophagus and trachea which was deviated to the right. The great vessels of the neck and cervical spine limited lateral and posterior margins of the process in the neck. Several cervical and mediastinal lymph nodes were enlarged and rubbery. In none of the areas involved was the mucosal surface invaded or eroded.

Further gross findings included splenic and renal congestion. There were enlarged lymph glands in the small bowel mesentery and both groins. The head and neck lesion appeared to be primary since no underlying disease was noted.

Microscopic sections were made at various levels of the sclerotic process including the retro-orbital tissue, pharyngeal, tracheal and esophageal lesions. The characteristic tissue contained large numbers of necrotic eosinophilic tubercles containing central non-septate, branching fungal hyphae. The granulomata involved the submucosal and muscular layers of the trachea, larynx, esophagus and pharynx. There was no invasion of large vessel walls or nerves but these structures were completely encased by the dense tissue to the point of occlusion of the internal carotid artery. The hyphae stained poorly with hematoxylin and eosin but well with Grocott's and PAS stains.

Morphologic characteristics of hyphae contained in the necrotic eosinophilic tubercles placed them in the class *Phycomycetes*. Fungal cultures were taken from retro-orbital tissue, cavernous sinus, nasopharynx, esophagus and trachea, as well as heart, blood, spleen and cerebrospinal fluid. These failed to grow the fungus so that positive indentification of species could not be determined.

Final anatomic diagnosis was Phycomycosis, species unknown. Acute laryngotracheal airway obstruction was the immediate cause of death. Careful search of microscopic sections failed to reveal an underlying disease process which might have predisposed to the fungal infection.

COMMENT

A careful perusal of the literature regarding phycomycosis reveals this disease to be rare in children who did not have underlying diseases such as: acidosis, leukemia, severe burns, etc. From the antemortem and postmortem studies of this patient we have failed to define underlying disease.

Phycomycosis refers to a group of infections caused by large, nonseptate fungi belonging to the class phycomycetes. The phycomycetes are ubiquitous molds that produce air-borne spores in tremendous numbers. Because of their ubiquitous nature, care must be exercised in the evaluation of their presence. It is necessary to demonstrate the characteristic broad, non-septate hyphae invading the tissue and find tissue reaction to the fungus. In most reported cases the organism is never grown in culture because it was not suspected or because inadequate specimens were obtained for culture, the organism being relatively easy to culture. The phycomycetes have a great affinity for hematoxylin, are large, non-septate and appear in great numbers.[1] Because of these characteristics, the fungi are easily found when tissue from surgery or autopsy is examined microscopically.

Phycomycetes show an affinity to grow profusely in tissue, invading along musculofacial planes and most characteristically their ability to invade arteries like Aspergillus infections, causing thrombosis.

The clinical forms include central nervous system, disseminated, pulmonary, gastrointestinal, subcutaneous rhinofacial forms, and CNS forms.

An 18 month old Caucasian male has been described who had a serosanguineous nasal discharge, after 10 days of diarrhea, acidosis and fever.[2] The patient went on to develop proptosis, ptosis of the right lid with a dilated fixed pupil on the right. The nasal lesion was found to contain typical, branched, non-septate hyphae with thrombosis. The patient was successfully treated with intravenous amphotericin B for six weeks. He recovered with only residual ptosis and blindness of his right eye.

Recently 14 patients were reported from Nigeria who had Entomophthora coronata infection of the face.[5] Like our patient, the patients from Nigeria were well and healthy. Sections from the present case were reviewed by Dr. Betty Clark at Ibadan University who thought the histological picture was similar to their cases.

Interestingly, phycomycosis has been reported as a cause of nasal granulomata in horses.[6]

It is impossible to determine the frequency which this disease is being encountered at the present time. Probably, the incidence of these infections is more common than most physicians realize. A heightened index of suspicion may account for the increased number of cases which are being reported. Also, these fungus infections may be on the increase because of the increased number of patients with acidosis, debilitating disease and disease states requiring prolonged treatment with antibiotics and/or corticosteroids.

COMMENT ON DRUGS

1. 5-fluorocytosine manufactured by Hoffmann-La Roche is a drug which has been shown to be effective in treating mice infected experimentally with Candida albicans and Cryptococcus neoformans. It has been used on a limited basis in humans.—Treatment of Candida sepsis and Cryptococcus meningitis with 5-fluorocytosine. JAMA, 206, No. 4, Oct. 21, 1968.

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Editorials

M. E. ALBERTS, M.D., Scientific Editor

FROZEN RED BLOOD CELLS

The Community Blood Bank of Marion County in Indianapolis, Indiana, has had nearly two years' experience in utilizing the low glycerol, rapid freeze method of preserving human red blood cells. In this method the white cells, plasma and platelets are separated from the donor blood and a low per cent glycerol is added to the red cells to protect them from freeze damage. Liquid nitrogen at 196° C is used to freeze and store the glycerolized red cells. Such red blood cells can be kept indefinitely, stored in plastic bags fabricated from a unique plastic film which remains flexible even at liquid nitrogen temperature (Hemoflex® Blood Bags, Union Carbide Corporation). When needed, the blood is rapidly thawed by agitation of the plastic storage bag in warm water, and the glycerol is removed by continuous-flow centrifugation or by batch-washing.

The Community Blood Bank of Marion County processes about 100 units of blood per day. Last year a total of 32,000 pints of blood were processed. Dr. Victor Muller, the director of the blood bank, endorses the use of frozen red cells for transfusion especially because of the definite decline in the incidence of hepatitis as well as transfusion reactions. Red cells reconstituted from the frozen state are essentially free of white cell contamination—irregular antibodies, white cells, plasma, protein, excess extra-cellular potassium, and perhaps even hepatitis virus. Utilizing a component therapy assures a sufficient amount of fresh plasma. The plasma may be used to furnish coagulation material and is processed to provide adequate amounts of sterilized serum albumin.

It would appear that other blood banks should consider this method of blood storage. The American Association of Blood Banks concedes that the development of a practical method for freeze-preservation will probably bring about major changes in the management of blood for transfusion.* Surely the Marion County experience strengthens this concept.

* PHYSICIAN'S HANDBOOK OF BLOOD COMPONENT THERAPY, American Association of Blood Banks, 1969, p. 15.

CRIB DEATHS

Increased interest in the strange phenomenon of sudden infant death has been generated by the report of the United States Senate Subcommittee on Children and Youth. The congressional hearing which preceded the report examined the sudden infant death syndrome in enough depth to bring to the surface some shocking facts.

Approximately 10,000 infants between the ages of two months and one year die annually in the United States of this enigmatic syndrome. The story is usually the same . . . a healthy, happy baby found lifeless in the crib with no previous indication of distress and no evidence of terminal agony. The parents very often emerge from the tragedy with guilt, distrust and self-doubt. They are sometimes shockingly treated by police and medical examiners who may infer "criminal neglect" or even murder.

Stories have been documented of parents' being detained for hours by police; of medical examiners who base their judgments on hearsay evidence from the police rather than findings at autopsy. Granted, child abuse is one of our social problems but we must assume innocence until guilt is proved. There is a distinct difference between the infant victim of sudden death syndrome and abuse by battering. The public must be aware of the syndrome, the police must be concerned for the sudden shock to the parents, and medical examiners must be ever astute in their conclusions. Again, education is the theme.

The National Foundation for Sudden Death, Inc., is trying to educate all those concerned. Congress has become involved. Now, doctor, it is also one of your concerns. Know about this syndrome and the havoc it can create. Medicolegal death investigation must be improved.

Many questions remain unanswered regarding the cause of these mysterious deaths. How does sleep alter the autonomic control centers of respiration? Why are males more commonly afflicted? What is the part that viral infections play? Does head position of the three-month-old infant constrict the airway in a peculiar way? Much basic research is obviously necessary and should be supported.—M.E.A.

INFORMED CONSENT

Before a patient can be operated on he must be informed of the nature of the surgery, and he must be made aware of the problems that may ensue; then written consent must be given. No promise of success may be given by the operating surgeon; only that his best skills will be used to achieve the results desired. Furthermore, the surgeon may not do more than the consent provides unless circumstances dictate for a better outcome for the patient.

Should not informed consent be a guiding principle for other professions or areas of activity? I particularly would advance this suggestion *now* toward the politicians. As this is being written, one of the major political parties is attempting to patch some holes in its fences through the convention process.

Both parties must be able to look the voter straight on and provide him with accurate information before consent is offered in the form of voter support.

I do not expect politicians to read this, but the physician voter may, and he or she certainly has a right to be treated fairly and honestly, as do all citizens. The issues must be faced forthrightly. If a candidate has particular feelings about an issue, let him be firm in his convictions and then let the voter make the decision.

But how can the voter make a right decision unless he is properly informed? The issues before us in this year's election are very complex. Many of the proposals to save us from "doom" are overlapping; many of the cures for the ills of society are not clear and precise. The difficult decision is that of selecting the candidates who appear to be strong in their convictions, forthright in their pronouncements and honest with themselves and with the voters.

The voter has a right to be informed before he gives his consent to be "operated upon" for the next term.—M.E.A.

WELCOME NEWCOMERS!

In the *About Iowa Physicians* and *In the Public Interest* sections of this issue mention is made of 23 new doctors who have entered medical practice this summer. We welcome these practitioners to the State's medical community. We recognize the arrival of these 23 physicians is not going to eliminate the concerns over medical manpower. But it is a favorable report. We commend to the use of Iowa physicians as it may be needed, the IMS Physicians' Placement Service. For more about how it works, please read the *In the Public Interest* section.

University Drug Letter

by GARFIELD TOURNEY, M.D.

NEWER TREATMENT FOR SCHIZOPHRENIA

Schizophrenia remains as a major medical problem, a mental illness or group of mental illnesses the cause (or causes) of which remains unknown, but for which there are empirical treatment methods of value in reducing symptomatology and controlling the manifestations of the illness. Schizophrenia represents a process of biosocial maladaptation with disorganization primarily in the thinking and feeling aspects of the patient. Reality can no longer be interpreted adequately and the individual cannot adapt himself to the usual stresses of life. Initial symptoms may be insidious or acute. Delusions and hallucinations are among the most obvious symptoms but disturbances in the association of ideas, inappropriate or absent emotions, withdrawal from social contacts and poor attention are important core symptoms.

A number of systems of classification have been presented for schizophrenia. One of the most useful systems is that of the reactive-process dichotomy. The type with the most favorable prognosis is reactive schizophrenia. The term reactive indicates that the patient is responding acutely with schizophrenic behavior to some stressful event in his life. Such patients have a reasonably healthy premorbid personality with social isolation being present only to a mild degree. The immediate symptoms with reactive schizophrenia are often severe, with illogical thinking, hallucinations and over-excitement in many instances. On the other hand, there may be under-activity and mutism as seen in catatonic schizophrenia. With process schizophrenia one sees an insidious onset, often occurring in an isolated and withdrawn individual with a poor school and work history. Such an individual may have been preoccupied for years with religious, ethical or magical ideas, and slowly falls into a state of illogical thinking and apathetic or inappropriate emotional responses.

Dr. Tourney is associated with the Psychopathic Hospital at The University of Iowa. This discussion appeared initially in the March, 1972 issue of DRUG LETTER, a monthly intramural publication of University Hospitals prepared jointly by the Pharmacy Department and the Clinical Pharmacology Committee.

The etiology of schizophrenia, or the group of schizophrenias, remains puzzling. Research has suggested a number of possible mechanisms, although no consistently abnormal results have been found. Many investigators now ascribe schizophrenia to a biologic disturbance. Evidence for this comes from genetic studies, a marked tolerance for drugs and biologic agents by schizophrenics, a lack of psychosocial precipitating factors in many cases, the occurrence of schizophrenic-like states with various physical causes (i.e., "temporal lobe schizophrenia" and amphetamine psychoses), metabolic disturbances involving carbohydrate metabolism and the metabolism of aromatic amines, abnormal serum constituents, and the empirical fact that the most effective therapeutic measures occur with drugs, mainly the phenothiazines.

A useful working hypothesis for the treatment of schizophrenia, irrespective of its fundamental etiology, is to regard the actual origin of symptoms as a disturbance in the brain mechanisms for attention or "mental set." The principal difficulty of the schizophrenic patient, according to this hypothesis, is the inability to control the focus of attention. The patient is distracted by many internal events, which become manifest symptomatically as hallucinations, delusions, other illogical ideas and inappropriate emotional responses. Other times he may be distracted by irrelevant stimuli from the outside world. Based on this hypothesis a treatment program should aim for the following:

1. The use of drugs which reduce the input of unselected and distracting information to the cerebral cortex. This facilitates the focusing of attention by reduction of the thinking disturbance and the aberrant emotional responses.

2. Simplification of a patient's outside world, making it as straightforward as possible, well structured, and free of distracting influences.

3. Reinforcement of a patient's own efforts to function normally by encouraging him when he does so and criticizing him when he does not. This is often referred to as "reality orientation" and plays an important role in individual psychotherapy of a supportive type as well as milieu treatment programs.

In terms of the above hypothesis for treatment of schizophrenia, drugs are used to reduce the sensory input. Such drugs are not merely sedatives but are much more specific and powerful. Phenothiazines, such as chlorpromazine (Thorazine) and trifluoperazine (Stelazine), and butyrophenones, particularly haloperidol (Haldol) are the most widely used drugs in the treatment of schizophrenia. Unlike the sedatives, these agents act on the ascending reticular system of the brain stem to function as a selective filter of incoming sensory information. Such selective filtering allows the patient to choose certain stimuli for attention and to ignore many of the disturbing stimuli. With large doses of these drugs, particularly chloropromazine, one also sees a sedative action that is useful in the treatment of the agitated or excited schizophrenic patient. Some investigators believe that trifluoperazine has much more of a specific antipsychotic action, reducing the thinking disorder, hallucinations and delusions, and also has a tendency to activate the retarded schizophrenic.

The impressive work of May on the treatment of schizophrenia has done much to clarify many issues. May did a comparative study of five treatment methods involving the use of drug (trifluoperazine) alone, psychotherapy plus drug, psychotherapy alone, milieu therapy, and electroconvulsive therapy (ECT). In the treatment of the hospitalized schizophrenic patient he found the use of drug alone and psychotherapy plus drug were the most effective treatments and also the least costly in time and money. There was no further efficacy when psychotherapy was added to the drug treatment. By all the movement and cost criteria, drug alone proved superior to psychotherapy plus drug. Psychotherapy alone and milieu therapy were clearly the least effective forms for treatment for schizophrenia. ECT occupied an intermediate position, although psychotherapy, milieu therapy and the use of ECT continue to have indications in the treatment of certain schizophrenic patients. Drugs seemed to be the most critical of the therapeutic agents available to the physician.

A vast number of phenothiazines have been introduced. Most studies tend to show that they have a similar effect in the treatment of schizophrenia. None of these other phenothiazines have been proven to be clearly superior to chlorpromazine, but many are the equal of this drug.

The phenothiazines are ordinarily given orally, but with the uncooperative patient parenteral administration may be necessary. Oral administration of chlorpromazine may involve as much as 2000 mg per day in order to control schizophrenic symptomatology. For acute symptoms in the uncooperative patient, 50 mg of chlorpromazine may be given intramuscularly and repeated as necessary in order to control disturbed behavior. In that many schizophrenics are uncooperative and lack insight into their illness, they frequently fail to take their medication. Recently one phenothiazine, fluphenazine enanthate (Prolixin Enanthate) has been given parenterally in a sesame oil vehicle. Patients can be treated by injection every two weeks, although they may be uncooperative in taking oral medication.

A number of side effects and toxic symptoms occur with the phenothiazines. These include drowsiness, dry mouth, hypotension, tachycardia, impaired heat loss, skin sensitivity, photosensitivity, jaundice and agranulocytosis. The most important major side effects are the extrapyramidal symptoms such as pseudoparkinsonism, dystonia and akathesia. These are dose related and may be prevented by routinely giving antiparkinsonian drugs, such as benztropine mesylate (Cogentin) in conjunction with the phenothiazines. The butyrophenone derivatives are a class of drugs structurally dissimilar to the phenothiazines, but having antipsychotic properties. Haloperidol has proved most effective in the therapy of the manic patient, but is also of value in treating over-active and excited schizophrenic patients. This drug seems to have value in treating grimacing and peculiar motor mannerisms in schizophrenic patients. Studies have shown that it has similar efficacy to that of chlorpromazine. Haloperidol also produces many extrapyramidal symptoms, and antiparkinsonian drugs should be used routinely with it.

Many schizophrenic patients need to be on antipsychotic medication for a number of years, making the treatment comparable to that for diabetes or hypertension. The phenothiazines and butyrophenones are not addicting drugs. In case of acute excitement, such drugs may be needed for only short periods of time.

ECT continues to have value in the treatment of certain types of schizophrenics. In the mute catatonic patient it often proves effective in bringing the patient out of his withdrawn and uncommunicative state within a matter of a few days. It is also helpful in treating cases of excitement and acute confusion. Where depression is a marked component of a schizophrenic illness, it may also prove of value. Depressive symptoms are commonly seen in association with schizophrenia, and in these instances antidepressive medication such as imipramine (Tofranil) or amitriptyline (Elavil) may be used in conjunction with the phenothiazines.

The simplification of the patient's world often is important. The expectancy of performance for the schizophrenic is often below that of the normal individual. The schizophrenic is easily distracted and has difficulty at decision making and so one should aim at making the patient's life as straightforward as possible, without confronting him with many of the stresses of life. As the patient improves he should slowly graduate to more complex and responsible behavior.

A further aspect of treatment deals with reality

(Please turn to page 500)

State Department of Health

ARNOLD M. REEVE, M.D., M.P.H., Commissioner

LEAD POISONING FROM CERAMICS AND POTTERY

There has been considerable concern about lead poisoning from dishes, bowls and other types of ceramic ware (also referred to as pottery), since a 60-minute program was carried on this subject in January over the NBC network. It was indicated at that time that small test kits were available for testing lead.

The Maternal and Child Health Division of the Iowa State Department of Health and the State Hygienic Laboratories, University of Iowa, Iowa City have since received numerous queries about the testing of lead in ceramics.

At this time there is no known small, inexpensive test kit to determine actual levels of lead in ceramics and pottery. It is assumed that the test kit referred to gives nothing more than a presumptive analysis.*

Lead, cadmium and other toxic metals occur widely in the environment. All known samples of soil have been found to contain at least trace amounts of these metals. These and other metals occur in small amounts in some of the foods we eat and in the air we breathe. Small amounts of these toxic metals can be taken into the body over a lifetime without any known hazardous effects since the body's natural elimination system keeps levels within safe limits.

In the glazing of ceramics a coating sometimes containing various metallic elements such as lead, cadmium and other toxic metals is used for sealing the surfaces. Glazing makes the items easier to clean and more resistant to wear.

The presence of lead or other heavy metal compounds in a glaze or decal does not in itself constitute a hazard. The important factor is the degree of solubility of the metal compounds in food acids such as are present in sauerkraut and tomatoes, for example, or at alkaline pH as in treated soft water. The amount of metal leached depends not only upon the degree of acidity or alkalinity but also upon length of time in contact and upon temperature (heat increases solubility).

Some imported pottery has been found dangerous for continued use for food purposes and could result in severe illness through lead poisoning. The United States Food and Drug Administration has taken the initiative in testing dishes imported from Mexico, Italy, France, West Germany, Portugal and Japan. Ceramic dinnerware manufactured in the United States has also been under scrutiny. As a result of this testing, both imported and domestic lots found to be contaminated have been recalled.

The United States Potters Association is conducting a *Dinnerware* Glaze Surveillance Program and has initiated a *Ceramic* Dinnerware Surveillance Program (an expansion of the Glaze Program) to insure that no dinnerware produced and distributed by United States manufacturers constitutes a hazard to consumers.

There is no quick, inexpensive test for determining levels of toxic metals in ceramics and pottery. It is recommended that neither highly acid nor highly alkaline foods be stored for long periods of time in ceramic vessels. If these kinds of foods must be retained after initial serving, it is good practice to store them in modern American-made glass products.*

* Personal communication from R. L. Morris, Ph.D., Associate Director, State Hygienic Laboratory, Medical Laboratory Building, Iowa City, Iowa.

PUBLIC HEALTH SERVICE ON INFLUENZA VACCINE

Influenza occurs in the United States every year, but the incidence and geographic extent vary widely. Periodically, it appears in epidemic form as a result of antigenic variation in prevalent viruses and the relative susceptibility of the population. Both type A and type B influenza viruses undergo antigen changes. Such changes

usually occur slowly, but occasionally they are rapid and abrupt. Epidemics caused by type A influenza viruses occur more frequently and are generally more severe than those caused by type B.

The effectiveness of inactivated influenza vaccines* has been variable, and protection has been relatively brief. This has contributed to recommendations only for selective use in persons at high-risk. Vaccine for 1972-73 has more antigen than prior products and should give better results. It should be given to chronically ill patients and possibly to older persons in general. These two groups appear more vulnerable than others to serious cases of influenza and its complications. Because some influenza occurs each year, annual immunization of "high risk" patients is indicated as a routine procedure regardless of the amount of influenza expected in any specific geographic area.

INFLUENZA VIRUS VACCINES

The Division of Biologics Standards reviews influenza vaccine formulation regularly and recommends reformulation, when indicated, to include contemporary antigens. The influenza vaccine this year is different from that available in 1971-72. Although the type A strain present in 1971-72 is retained, its potency has been increased from 400 to 700 chick cell agglutinating (CCA) units. A more current type B strain replaces that in the 1971-72 formulation. Each adult dose of 1972-73 vaccine contains a total of 700 CCA units type A (A/Aichi/2/68(H3N2))** and 300 CCA units type B (B/Massachusetts/1/72). Doses for children are specified in the manufacturer's package labeling. Vaccines from all producers are of the highly purified variety and should be less often associated with adverse reactions than the previous influenza vaccines.

VACCINE USAGE

General Recommendations

Annual vaccination is recommended for persons of all ages who have chronic debilitating conditions: 1) congenital and rheumatic heart disease, especially with mitral stenosis, and arteriosclerotic and hypertensive heart disease, particularly with cardiac insufficiency; 2) chronic bronchopulmonary diseases, such as asthma, chronic bronchitis, cystic fibrosis, bronchiectasis, emphysema, and advanced tuberculosis; 3) diabetes mellitus and other chronic metabolic disorders.

Although the value of routinely immunizing all older age persons is less clear, those patients who have incipient or potentially chronic disease, particularly affecting cardiovascular and bronchopulmonary systems, should also be considered for annual immunization.

Immunizations of persons who provide essential community services may also be considered if local priorities justify. However, before undertaking such programs, responsible physicians must take into account a number of reasonable constraints: difficulties inherent in predicting influenza epidemics, variability of vaccine effectiveness, incidence of adverse side effects, cost, availability of vaccine, and risk of diverting vaccine from those with chronic debilitating conditions who are at risk.

Schedule

The primary series consists of 2 doses administered subcutaneously, preferably 6-8 weeks apart. (Dose volume for adults and a detailed schedule for children are specified in the manufacturers' labeling.) Persons who have had 1 or more doses of vaccine containing the Hong Kong strain antigen (all influenza vaccines since 1968-69) need only a single subcutaneous booster dose of bivalent vaccine. All others should receive the full primary series. Vaccination should be scheduled for completion by mid-November.

Precautions

Influenza vaccine is prepared from viruses grown in embryonated eggs and ordinarily should not be administered to persons clearly hypersensitive to egg protein, ingested or injected.

This material is prepared by the Public Health Service Advisory Committee on Immunization Practices and is published in Morbidity and Mortality Weekly Report, Vol. 21, No. 24, 1972.

* The official name of the currently available product is Influenza Virus Vaccine, Bivalent.

** The World Health Organization has recommended a revised system of nomenclature for type A influenza viruses which includes its strain designation and a description of the two surface antigens, hemagglutinin (H) and neuraminidase (N).

ON ANTIBIOTICS & INFECTION

The 3rd Annual Meeting on Antibiotics and Infection will be at The University of Iowa October 26, 27 and 28. The five guest speakers are Elisha Atkins, M.D., Yale University; King K. Holmes, M.D., USPHS, Seattle, Washington; Calvin M. Kunin, M.D., University of Wisconsin; William R. McCabe, M.D., Boston University, and David H. Smith, M.D., Harvard University. Thirty U. of I. faculty will also participate. Direct inquiries to Ian M. Smith, M.D., Department of Internal Medicine, University Hospitals, Iowa City, Iowa 52240.

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and the Latin **sedatus**,
to calm)

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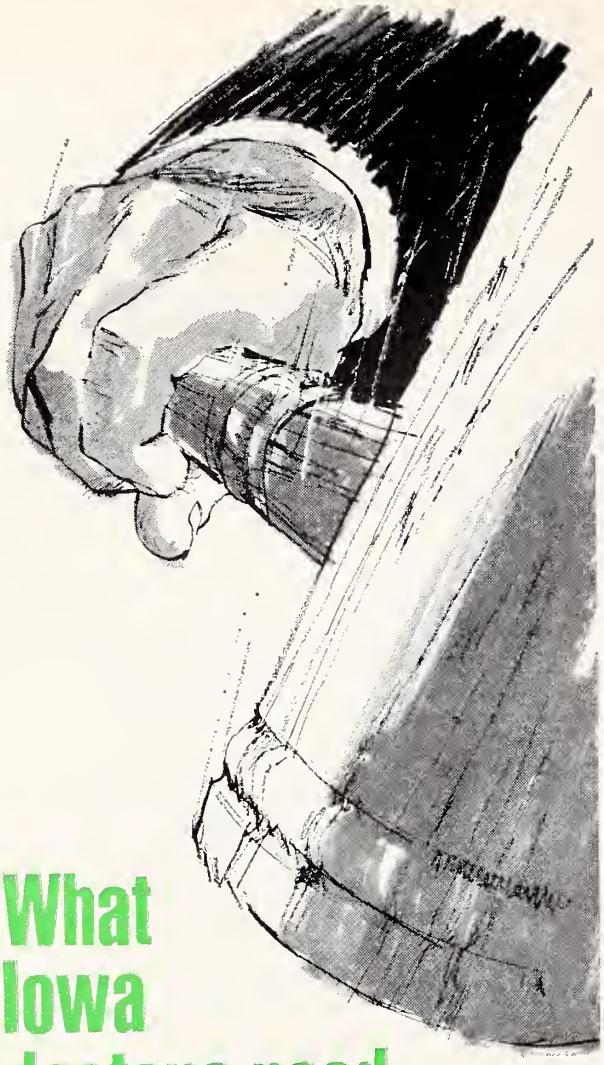
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Chuckwalla (*Sauromalus obesus*):
This southwestern desert lizard seeks
shelter in crevices of rocks.
When attempts are made to probe him
from his niche, he gulps air
until his torso is distended up to
sixty per cent over its normal size...
thus wedging himself tightly
in place and preventing capture.

Morbidity Report for July 1972

Diseases	July 1972	1972 to Date	1971 to Date	Most July Cases Reported From These Counties
Chancroid	1	5	1	Emmet
Chickenpox	34	6431	5363	Dubuque, Des Moines, Polk, Clay
Conjunctivitis	2	640	348	Johnson
Encephalitis, Viral	1	5	3	Dubuque
Gastrointestinal Viral Infection	31	4247	5179	Johnson
German Measles	2	379	657	Dubuque
Gonorrhea	444	3566	3053	Polk, Scott, Linn, Woodbury
Hepatitis, Infectious	15	175	189	Polk, Scott, Woodbury
Serum	3	41	11	Polk
Histoplasmosis	1	19	14	Black Hawk
Impetigo	3	223	220	Scott
Infectious Mononucleosis	15	576	738	Johnson, Scott
Measles	8	711	2230	Dubuque, Polk
Meningitis, Aseptic	1	1	0	Buena Vista
Bacterial	1	2	1	Linn
H. influenza	1	8	5	Page
type unspecified	2	13	6	Lee, Muscatine
Meningo-Encephalitis	1	4	3	Johnson
Mumps	24	5659	2920	Dubuque, Scott, Calhoun
Pneumonia	61	552	532	Scott
Rabies in Animals	41	236	157	Scattered
Rheumatic Fever	2	25	42	Des Moines, Keokuk
Rocky Mt. Spotted Fever	1	1	0	Poweshiek
Salmonellosis				
S. braenderup	1	2	0	Scott
S. enteritidis	2	12	6	Delaware, Story
S. gaminara	1	1	0	Polk
S. java	2	6	1	Polk, Linn
S. Montivideo	1	2	0	Linn
S. newport	2	10	8	Clay, Woodbury
S. typhimurium	10	37	20	Marshall, Polk
S. typhimurium var copenhagen	1	4	1	Delaware
S. berta	1	1	0	Dubuque
Shigellosis				
S. sonnei	9	155	71	Linn
Group D.	1	1	0	Pottawattamie
Streptococcal Infections	216	4543	4519	Johnson, Jefferson, Jackson
Syphilis	45	286	359	Polk, Scott, Wodbury
Tuberculosis, Active	22	69	77	Polk, Pottawattamie, Scott
Whooping Cough	1	31	19	Scott



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Pathology Capsules

by R. E. WELAND, M.D.

MONOCYTOSIS

The term Monocytosis refers to the increase in monocytes beyond the normal 500 per cu mm or the usual 4-8% of the normal differential count. While increases in the monocytes are not seen as often as many other shifts in the leucocytes, a careful evaluation of their significance is important to the clinician.

Many chronic infections will be accompanied by an increase in monocytes, such as subacute bacterial endocarditis, brucellosis, typhus fever, some protozoal and rickettsial infections. Tuberculosis used to be an important cause and the ratio of monocytes to lymphocytes was very useful in the prognosis, with a marked monocytosis reflecting a poor response and poor prognosis and with a reversal of the ratio during healing phases.

During convalescence from acute infections and in the recovery phase from agranulocytosis a significant monocytosis may occur.

A striking increase in monocytes is sometimes seen in malignancy in general, but more specifically in malignant lymphomas, especially Hodgkin's disease. It has also been a frequent precursor of ordinary granulocytic leukemia.

From the laboratory standpoint, it is important that the technologist be capable of recognizing the monocyte and differentiate it from other similar cells, such as the atypical lymphocyte of infectious mononucleosis and the metamyelocyte of the granular cell series. For some unexplained reason technicians have a reluctance to report monocytes and in some laboratories few monocytes are reported or they are buried in the wastebasket of lymphocytes or atypical lymphocytes.

The differential diagnosis between the monocyte and the two common similar cells encountered in most laboratories are:

a) The atypical lymphocyte of infectious mononucleosis has an indented or folded nucleus, the nuclear chromatin is much coarser and resembles the mature lymphocyte. There is frequently a perinuclear clear zone with concentration of the light blue staining cytoplasm near the cellular borders. While vacuoles frequently occur in the cytoplasm and the abundant cytoplasm often forms an "oak leaf" shape, these two features are often seen in the monocyte also.

b) The metamyelocyte (or "juvenile") of the neutrophilic granular cell series has a coarsely granular nuclear chromatin and the nucleus is usually indented, but not lobulated. The cytoplasm has a "neutral" or indefinite color, but not any blue color, and the granules are much larger and coarser.

This series of review articles is provided by the Iowa Association of Pathologists. This discussion has been prepared by R. E. Weland, M.D., who practices pathology in Cedar Rapids.

I REMEMBER WHEN—DO YOU?

Typhoid Fever—What a disease to treat in the 30's. To try to combat this debilitating illness taxed all physicians. The problems of hemorrhage, loss of weight, strict control of excreta, and maintenance of good morale were all difficult to handle. Gradually, with the controlled intake of sufficient and correctly selected food, many patients did survive. Public health measures, e.g., water, foods and sanitary practices in the home, did more to reduce the incidence of typhoid than antibiotics or sulfas. Many physicians today have not had the experience of seeing a case, as is true of smallpox, diptheria, poliomyelitis. The advances in medicine over the last 50 years to those of us who practiced in the 20's and 30's is beyond belief.—Otto N. Glesne, M.D., *Chairman, IMS Historical Committee.*

RADIOLOGY WINDOW

CASE NO. 5

(Continued from page 469)

If you chose No. 5 (all of the above) you were correct. The following observations are of interest and are indicated by arrows in Figures 2A and 2B. L-3,4 and L-4,5 interspaces are narrow with osteosclerosis of adjacent vertebral body margins and hypertrophic spurring indicating degenerative arthritis. The gallbladder is outlined by gas in the gallbladder itself as well as by a collection of gas within the wall of the gallbladder or in the pericholecystic tissues. The latter is better seen on the right decubitis view where an air-fluid level is present. The x-ray appearance of the gallbladder is diagnostic of emphysematous cholecystitis representing a somewhat unusual entity characterized by an acute infection of the gallbladder caused by gas-forming organism usually clostridium welchii or Ecoli. An immediate cholecystectomy was performed and a smear of the gallbladder contents revealed many gram positive long bacilli, presumably clostridial. A subsequent culture confirmed the presence of a gas-forming clostridial infection. The urinary bladder emptied incompletely as evidenced by the smooth-bordered tissue density in the pelvis; also note the sharp psoas margins over which the colon is outlined by its gas and fecal content.

Except under unusual circumstances films of the abdomen should be obtained in supine and upright positions, although the decubitis view may be conveniently substituted for the upright position if the patient is unable to stand. Because of different surrounding densities a number of structures can be identified on these plain x-rays and include the spleen, liver and renal soft tissue contours as well as the psoas margins and urinary bladder which should be evaluated relative to size, position, etc. For example the psoas margins are frequently blurred or obliterated by a retroperitoneal inflammatory or neoplastic process. The gas content of the stomach and colon usually gives a reasonably good idea of their location and caliber. The upright or decubitis views should be studied for the presence of free interperitoneal air, calcification and the presence of air-fluid levels within loops of intestine or other structures.



Figure 2A



Figure 2B

Medical Assistants

by TENORA MEYER

COMPREHENSIVE REVIEW FOR THE MEDICAL ASSISTANT by *M. Murray Lawton*, M.D., and *Donald F. Foy*, B.S., M.S., M.P.H. (St. Louis, C. V. Mosby Company, 1972, $5.50).

This publication is primarily a preparatory device for the medical assistant who wishes to become certified; however, whether the medical assistant plans to be examined for certification or not, this reference volume will be an asset to her in the daily medical office routine.

The book is co-authored by M. Murray Lawton, M.D., Administrator, Berkley School of Nursing Arts, Santa Monica, California, and Donald F. Foy, B.S., M.S., M.P.H., Director, Department of Health Manpower, American Medical Association, Chicago, Illinois.

I was impressed with the extensive information in this reference book. Being familiar with the certification examination, I believe the book covers all the fundamentals adequately. It briefs the reader on the purpose of certification and explains that this professional designation is accorded to those individuals who meet certain requirements of education, experience and competency and successfully complete the examination given each June.

The book follows the various sections of the examination as follows:

Section I: Medical Terminology, Anatomy and Physiology.

Section II: Personal Adjustment and Human Relations, Oral Communications, Medical Ethics and Etiquette.

Section III: Medical Law and Economics.

Section IV: Office Skills and Secretarial and Administrative Procedures.

Section V: Accounting, Credits and Collections and Records, Medical and Non-Medical.

Section VI: Examination Room Techniques, Sterilization Procedures, and Care of Equipment.

Section VII: Laboratory Orientation.

The certification examination contains multiple choice questions which are sometimes so much alike a candidate cannot be sure of the correct answer unless he has a thorough knowledge of the subject matter.

Pertinent questions appear in bold-face type on each page of this reference book, an arrangement which makes scanning convenient. For example, DEFINE THE TERM "MALPRACTICE"—then an explanation is provided.

To prepare for the Medical Terminology and Anatomy and Physiology Sections, a list of systems of the body with an explanation of each is included. It provides prefixes and suffixes, tells how to combine medical words, and includes a list of conditions. In addition, the authors suggest a thorough review of a recommended anatomy and physiology textbook and a good textbook on medical terminology.

The authors indicate that a medical assistant performs many functions. Her role differs from that of a registered nurse in that she is trained for the physician's office whereas a nurse is trained primarily to care for patients in a hospital.

A medical assistant will prepare patients for examinations, medical treatment and surgery; check height, weight, temperature and blood pressure, and do simple laboratory tests. She may perform such administrative tasks as keeping medical records, filling out medical reports and insurance forms, scheduling appointments and acting as a receptionist.

It has an excellent section on insurance, including Medicare, Medicaid, CHAMPUS, Workmen's Compensation and other miscellaneous coverages. It explains what emergency situations a medical assistant encounters in her daily routine and what she can confidently do for the patient until the doctor is available, e.g., what to do for a patient who has had a convulsion, nasal hemorrhage, fracture case, insulin reaction, etc.

Bookkeeping procedures, handling of mail, appointments and billing and collecting instructions are included.

I was particularly impressed with the practical content of this book. It explains the "simple" things which many technical books omit.

This page is prepared for and by Iowa Chapter, American Association of Medical Assistants. Material is compiled by Miss Tenora Meyer.

LETTERS TO THE EDITOR SEPTEMBER

Dear Editor:

I was interested in the report of the State Department of Health on Treatment of Persons Addicted to or Dependent on Drugs which appeared on page 436 of the August issue of the JOURNAL. The definitions and requirements contained in the new reporting law are brought out in this article.

However, I was troubled by a number of unexplained items. Table 1 mentions at least six drugs which were reported to have produced drug addiction or dependency, and they have not, as far as I know, been reported to be capable of doing this. It would be useful to me and others to have clinical data which shows these drugs can produce either an addicted or dependent state, as we know and understand these terms. There are others on the list I would have difficulty with, but I would like to select as an example three antipsychotic drugs mentioned: Haldol, Mellaril and Thorazine. In my reading and experience, I don't think one could correctly state that people were addicted to or dependent on these antipsychotic drugs, even though another name for them is major tranquilizer. I would also mention three antidepressants of the modern type: Elavil, Pertofrane and Tofranil. I again am not aware there are reports which suggest these could be involved with drug addiction or dependency.

This is quite important and it is not the first time I have noted this kind of report without explanation. This material is available to the public, and treating a person with one of the drugs I have mentioned over a long term and in adequate dosage is made more difficult by reports which suggest they are related to addiction or dependency. Both classes of drugs are used for rather specific treatment. Serious schizophrenic disorders may be treated over long periods of years with the antipsychotics, and in the case of the second group, the antidepressants, the depressive processes may require medication again for a period of years. Perhaps the committee of the Medical Society that is involved in drug abuse might be useful in dealing with this problem. Thank you.

WILLIAM A. BOCKOVEN, M.D.
Ames

Dear Editor:

Your editorial on the Journals from Hawaii and Alaska was very interesting. Would it be possible to borrow the two journals mentioned (April '72—Alaska; March-April '72—Hawaii) or could I get them somewhere? Next winter we hope to go to both places.

As a former editor of CLINICAL MEDICINE, I appreciate the good work you are doing with our state journal.

RALPH L. GORRELL, M.D.
Clarion

UNIVERSITY DRUG LETTER

(Continued from page 492)

orientation. Logical argument by no means alters the delusions or fixed beliefs characteristic of schizophrenia. Hallucinations and delusions can often be approached though in terms of their manifestation from some internal illness rather than external reality. One avoids any arguments or extensive discussions about the delusions or hallucinations of the patient. One emphasizes that the patient is expected to behave in a rational way. One supports the positive aspects of his behavior. A question often raised is related to the fear of the family in terms of violence of the patient, but the majority of schizophrenic patients are not dangerous, although this is at times difficult to predict. Most schizophrenics, given an adequate treatment plan including drugs, will improve and be able to live at home. However, when the illness has been insidious, with many premorbid pathological personality traits, the prognosis may be guarded and the level of functioning minimal. At times long term hospitalization is definitely indicated for these patients.

In summary one can see that schizophrenia remains a major enigma for medicine and psychiatry. Empirical treatment approaches involving drugs, judicious use of ECT, supportive psychotherapy and family oriented therapy play a role in the overall treatment of the patient. The patient's involvement within the community, vocational rehabilitation programs and resocialization activities are also important. However, we still await further investigation for a major breakthrough in understanding the nature of the schizophrenic illness or illnesses and specific treatment measures.

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About IOWA Physicians

The names and locations of 23 physicians who have entered medical practice in Iowa this summer are noted on the next several pages.

Dr. S. P. Gutierrez, a surgeon, has joined **Drs. L. B. Bray, C. R. Rominger** and **B. R. Withers** in the practice of medicine at Waukon. Dr. Gutierrez attended the University of Santo Tomas, completed a year of internship and a residency in surgery at Wayne County General Hospital in Michigan.

Dr. L. W. Thompson has opened an office for the private practice of medicine in Red Oak. A 1942 graduate of the University of Nebraska School of Medicine, Dr. Thompson has been appointed to the medical staff at Murphy Memorial Hospital where he will serve as an anesthesiologist. Dr. Thompson formerly practiced medicine in Blair, Nebraska.

Three physicians recently began or resumed practice at the Gilfillan Clinic in Bloomfield. **Dr. M. B. Croxdale** began the practice of dermatology; **Dr. John J. Finneran** began the practice of surgery; and **Dr. Philip W. Caster** resumed his family practice after being released from military service. Dr. Finneran received the M.D. degree at Marquette University in 1965. He served his internship at St. Francis Hospital in Hartford, Connecticut, and completed his residency in general and vascular surgery at Marquette University.

Dr. F. Waly has opened an office for the private practice of pediatrics in Humboldt. A native of Baghdad, Iraq, Dr. Waly came to the U. S. in 1968 after nearly five years as a general practitioner in his native land. He completed his internship at Brooklyn-Cumberland Medical Center in New York City and served his pediatric residency at the University of West Virginia, Morgantown, West Virginia.

Dr. Robert B. Pierce, formerly of Heron Lake, Minnesota, joined the staff at the Estherville Medical Center on August 1. Dr. Pierce received the M.D. degree at the University of Minnesota Medical School in 1944. Following his military service in World War II, he practiced medicine with his father in Wadena, Iowa, before locating in Minnesota. Dr. Pierce will soon receive a specialty certification in family practice from Denver University.

Dr. William Hicks has joined **Dr. Scott Helmers** in the family practice of medicine in Sibley. Dr. Hicks received the M.D. degree at The U. of I. College of Medicine and has completed his internship and a year of family practice residency at Broadlawns Hospital in Des Moines, Iowa.

Dr. Robert A. Boldus has joined **Drs. Dwayne Howard** and **Mary Louise Gannon** in the practice of urology in Sioux City. Dr. Boldus received the M.D. degree at Marquette University in Milwaukee, Wisconsin; completed his internship at Walter Reed Hospital in Washington, D. C., and served his residency in urology at The U. of I. College of Medicine. Prior to joining the Sioux City physicians, Dr. Boldus was an assistant professor at the Vanderbilt University School of Medicine in Nashville, Tennessee.

Dr. Dale G. Wulf, a native of Grand Mound, has become associated with Medical Associates in Clinton. Dr. Wulf received the M.D. degree at The U. of I. College of Medicine in 1969 and completed his internship at Hennepin County Hospital in Minneapolis, Minnesota. Following his internship, Dr. Wulf served two years in a family practice residency.

Dr. Pablo Recinos, a surgeon, has joined Surgical Associates in Mason City. A native of Guatemala City, Dr. Recinos received the M.D. degree at the University of San Carlos and also com-

pleted his internship there. He recently completed a residency in general surgery at The U. of I. College of Medicine.

Dr. Jay Belsare, a surgeon, has become associated with **Drs. Norman Johnson** and **Fredrick Sperry** at Clarinda. A native of Poona, India, Dr. Belsare received the M.D. degree at Poona University in 1963, and continued his medical education at Sasoon Hospital in Poona until 1966. Coming to the United States in 1967, Dr. Belsare served at hospitals in Durham, North Carolina, and Richmond, Virginia. He completed his final year of surgical residency in Mason City.

Dr. Richard L. Kreiter, an orthopedic surgeon, has joined the Bluff Medical Center staff in Clinton. A native of Davenport, Dr. Kreiter received the M.D. degree at The U. of I. College of Medicine in 1965. He served his internship at Cincinnati General Hospital, University of Cincinnati Medical Center, and was a resident in surgery at the Gunderson Clinic in LaCrosse, Wisconsin from 1966-1967. Following completion of his military obligation, Dr. Kreiter resumed his orthopedic training at the Campbell Clinic in Memphis, Tennessee, and in June of this year he completed his residency.

Dr. Keith Lacey recently joined the staff at the Kersten Clinic in Fort Dodge in the Department of Family Practice. Dr. Lacey received the M.D. degree at the University of Minnesota and completed his internship at McKennan Hospital in Sioux Falls, South Dakota.

Dr. M. Zafer Kayyali has opened an office in Iowa City for the practice of pediatrics. Dr. Kayyali has been a resident in the pediatric department at The U. of I. College of Medicine and a fellow in the study of infectious diseases. Born in Jaffa, Palestine, Dr. Kayyali earned his M.D. degree at the American University of Beirut in Lebanon. He practiced medicine in Saudi Arabia for three years prior to coming to The U. of I. in 1969.

Dr. Shivaram T. Shetty, an internist and cardiologist, has joined the Department of Internal Medicine at the Park Clinic in Mason City. A native of Mysore, India, Dr. Shetty received the M.D. degree at Mysore University. He has been in the United States five years and has served internships at St. Thomas and Akron Children's Hospital in Akron, Ohio; at Cleveland Metropolitan General Hospital and Lutheran Medical Center in Cleveland, Ohio; and at Maumee Valley Hospital at Toledo, Ohio.

Dr. J. G. Schaff has joined the Hamburg-Sidney Medical Clinic in Hamburg. Dr. Schaff received his master's degree in pharmacology at the University of Nebraska in 1965 and earned the M.D. degree at the University of Nebraska School of Medicine in 1969 where he also completed his internship.

Dr. Romaine Bendixen has joined **Dr. D. N. Crabb** in the practice of medicine at Denison. A graduate of The U. of I. College of Medicine, Dr. Bendixen served his internship at Bethesda National Naval Medical Center in Bethesda, Maryland, and completed a year of training in gynecology and obstetrics at the San Diego Naval Hospital. For the past year he has served as senior medical officer aboard the aircraft carrier, *USS Ticonderoga.*

Dr. Rodrigo S. Domingo has joined the staff of the Rohlf Memorial Clinic at Waverly in the practice of internal medicine. Dr. Domingo is a native of Bulacan, Philippine Islands, and a graduate of the Medical School of Manila Central University. He completed his internship and residency in internal medicine at St. Banabas Hospital in Minneapolis, Minnesota. Dr. Domingo practiced medicine in the Philippines for two years prior to returning to the United States. After a year's fellowship in chest diseases at the Veterans Administration Center in Wood, Wisconsin, Dr. Domingo became staff physician at the Iowa Soldiers Home in Marshalltown, where he practiced until joining the Rohlf Clinic.

Dr. Craig J. Chapple joined the Semler Medical Center in Story City in July. Dr. Chapple received the M.D. degree at Marquette University in Milwaukee, Wisconsin, and served his internship at the Cleveland Clinic in Cleveland, Ohio. For the past two years Dr. Chapple has been an Air Force flight surgeon.

Dr. Peter Mangawang has opened an office for the private practice of medicine in the DeWitt Community Hospital Doctors Clinic. The new DeWitt physician is a graduate of the Far Eastern University in the Philippines. He interned one year at St. Elizabeth Hospital in Elizabeth, New Jersey; served his first-year residency in internal medicine there; his second year of residency in the same field was in New Orleans, La.; and the third year was spent at Tucson Hospital Medical Educational Chapter, Tucson, Arizona. Dr. Mangawang recently completed a one-year residency in general practice at Portsmouth General Hospital, Portsmouth, Virginia.

Dr. James O. Stallings has opened an office in Des Moines for the practice of reconstructive plastic surgery, otolaryngology and maxillofacial surgery. A 1962 graduate of the University of Pennsylvania, Dr. Stallings served his general surgery residency at Veterans Administration Hospital in Iowa City and at Mercy Hospital in Mason City. He served as a resident in otolaryngology at University Hospitals in Iowa City and recently completed two years of study in plastic surgery at the Institute of Reconstructive Plastic Surgery in New York.

Dr. L. K. Lamberty has opened an office for the private practice of medicine in Decorah. Dr. Lamberty is a graduate of the University of Nebraska School of Medicine and completed his internship at Deaconess Hospital in Spokane, Washington. He recently completed three years of service with the U. S. Navy.

The Iowa Medical Society welcomes these physicians. For an update on medical manpower in Iowa, read "In the Public Interest" facing page 510.

Dr. T. H. Van Camp, of Breda, and **Dr. L. E. Jensen,** of Audubon, were honored for their long service in the medical profession at the recent annual banquet of the St. Anthony Nurses' Alumnae Association in Carroll. Dr. Van Camp has practiced medicine for 55 years and Dr. Jensen recently celebrated his 50th year in the practice of medicine.

Dr. John Tyrrell, of Manchester, was elected finance officer of the Iowa Regional Advisory Group (IRMP) at the organization's recent annual meeting in Des Moines.

Dr. Elmer S. Groben, of Iowa City, has been named part-time director of medical education at Iowa City's Mercy Hospital. In the new position, Dr. Groben will coordinate medical education programs under the recently-signed Mercy-University of Iowa affiliation agreement. Four family practice residents will work under Dr. Groben's guidance at Mercy. Dr. Groben received the M.D. degree at The University of Buffalo, and has been in general practice in Iowa for over 25 years. He is past chief of staff at Muscatine General Hospital and was recently appointed clinical assistant professor in the Department of Family Practice at The U. of I.

Dr. O. H. Banton, retired Charles City physician, was recently presented two plaques at a banquet in his honor at The U. of I. Dr. Banton received a duplicate of the plaque that will hang in the Iowa Fieldhouse lettermen's lounge, an area which is named in his honor. He was also awarded a certificate of membership in The U. of I. President's Club. A Life Member of the Iowa Medical Society, Dr. Banton won football letters in 1910 and 1911 at the University.

Dr. Donald Layton, a Mayo Clinic neurologist, was the guest speaker at the July meeting of the Wright County Medical Society. Dr. Layton discussed neurological problems.

Dr. Wendell K. Downing, of Des Moines, is one of six U. S. surgeons whose comments on treatment of symptomatic hemorrhoids appear in the July 10 issue of MODERN MEDICINE.

Dr. James E. Reeder, Jr., of Sioux City, has been appointed by the City Council to succeed **Dr. Charles T. Maxwell,** also of Sioux City, as city health officer. Dr. Reeder is presently serving as Woodbury County health officer.

Dr. James A. Clifton, professor and head of internal medicine at The U. of I. College of Medicine, has been elected to a three-year term as a member of the American Board of Internal Medicine and chairman of the Subspecialty Board on Gastroenterology.

Dr. R. B. Widmer, of Winfield, was guest speaker at a recent meeting of the Iowa TOPS (Take Off Pounds Sensibly) group in Winfield. Dr. Widmer's topic was "Obesity and Heart Related Problems."

The wife of a Des Moines physician, **Mrs. Howard G. Ellis,** has been named health services chairman of the Woman's Auxiliary to the American Medical Association. The appointment was made during the Auxiliary's recent anniversary convention. Mrs. Ellis was president of the Woman's Auxiliary to the IMS from 1964 to 1965. She has held numerous national and regional auxiliary positions.

Dr. William Thoman and **Dr. Stuart Leafstedt,** both Sioux City physicians, have been named to the new executive board of the Woodbury County Chapter, American Cancer Society. **Drs. E. L. Van**

Bramer, **L. W. Van Voorhis**, **Don Boyle**, **Barry Knapp**, and **Henry Caes**, also of Sioux City, have been appointed to the advisory board. Drs. Thoman and Van Voorhis were appointed to the 1973 Cancer Crusade Committee. Crusade awards presented at the time of the appointments included one to Dr. Leafstedt of the professional division.

Dr. John MacQueen, associate dean at The U. of I. College of Medicine, spoke on the health manpower problem at a recent meeting of the Washington Rotary Club.

Dr. George Beal, and **Dr. George Hegstrom**, both of Ames, concluded their service to the Iowa Regional Medical Program at the June IRMP annual convention in Amana. Dr. Hegstrom served for two years as chairman of the Iowa Regional Advisory Group, the governing body of IRMP. He has currently been serving on the IRAG executive committee. During the past year, Dr. Beal has been a member of the Advisory Group's program and project evaluation committee.

Dr. Paul M. Seebohm, an associate dean at The U. of I. College of Medicine, has been appointed to the Special Medical Advisory Group of the Veterans Administration by **Donald E. Johnson**, VA administrator. Dr. Seebohm will serve a four-year term.

Approximately 150 northern Iowa physicians attended the Tenth Annual Spring Symposium sponsored by the Mason City Park Clinic in May. **Dr. James C. Hunt**, professor and chairman, Section of Nephrology, Mayo Clinic, discussed the current management and evaluation of a patient with hypertension at the morning seminar. **Dr. John R. Hodgson**, Professor and Chairman, Section of Diagnostic Radiology, Mayo Clinic, and Dr. Hunt shared the podium for an evening symposium on "Questions and Problems Concerning Continuing Medical Education."

Dr. Ronald M. Lauer, Professor in the Department of Pediatrics at The U. of I. College of Medicine, was chosen in April to serve on the President's Panel on Heart Disease. The panel will consider the problems of heart and blood vessel disorders and explore ways of reducing illness and death from these disorders. The panel met initially in May in Bethesda, Maryland, and will make its report to the President by September 1.

Dr. Stephen J. Curtis, of Iowa City, has been named a Fellow of the American College of Physicians.

Dr. Andrew T. Engelmann, of Sioux City, has been named a "charter" fellow of the American Academy of Family Physicians. Dr. Engelmann attended the organization's convocation presentation ceremonies in Denver.

Dr. Mark A. Stewart, of Washington University, St. Louis, has been appointed Ida P. Haller Professor of Child Psychiatry at The U. of I. College of Medicine. The endowed professorial chair was made possible through the bequest of Ida P. Haller, Davenport, who willed her entire estate to The U. of I. Foundation to be used for research in child psychiatry. Miss Haller, who died in 1971, was a teacher at Davenport High School for many years. A native of England, and now a U. S. citizen, Dr. Stewart earned the M.D. degree at Cambridge and St. Thomas' Hospital Medical School of the University of London. After interning at St. John's General Hospital in Newfoundland, he took specialty training in psychiatry at Barnes and Renard Hospitals in St. Louis and later was a postdoctoral fellow in pharmacology at Washington University.

Dr. Glenn M. Dalbey, of Traer, has returned home from Rochester, Minnesota, where he has been undergoing therapy for severe back injuries received in an automobile accident in December, 1971.

At a recent meeting of the Carroll Rotary Club, **Dr. James E. McGill**, of Carroll, described the new coronary care unit at St. Anthony Regional Hospital.

Dr. Albert Dolan, of Waterloo, was guest speaker at a recent meeting of the Tama County American Legion and American Legion Auxiliary. Dr. Dolan discussed drug abuse.

Dr. Robert J. Barry, of Sioux City, presented information on sunburns recently over KMEG-TV in Sioux City.

Dr. Mark Ravreby, of Des Moines, and **Dr. W. J. Robb**, of Cedar Rapids, were guest speakers at the annual meeting of the Iowa Bar Association in Des Moines. Both physicians discussed medical malpractice suits.

Dr. Chester McClure, medical director of the Northeast Iowa Mental Health Center in Decorah, was a guest lecturer at the 21st annual School on Alcoholism and Drug Dependence held this summer at the University of Utah in Salt Lake

City. Dr. McClure also appeared on a question-and-answer television program in Salt Lake City which was devoted to alcoholism and drugs.

Dr. Thomas J. McIntosh, of Cedar Rapids, has been admitted to membership in the American College of Physicians.

At a recent meeting of the Stacyville Commercial Club, **Dr. T. E. Blong**, of Stacyville, was presented a plaque in recognition of his medical service to the community since 1933. Dr. Blong retired from active practice last year. He and Mrs. Blong have a winter home in Florida but return to Stacyville in the summer months.

Dr. F. O. W. Voigt, of Oskaloosa, Iowa Heart Association president, recently announced publication of a new brochure entitled, "Volunteers in Community Service." The publication describes the community program activities of the Iowa Heart Association. It points out how heart volunteers serve the community in areas of prevention, emergency treatment and rehabilitation. Copies of "Volunteers in Community Service" are available on request from the Iowa Heart Association, 529 36th Street, Des Moines, Iowa 50312.

Dr. Russell Forrest, of Council Bluffs, has accepted a position with the Veterans Administration Hospital in Lincoln, Nebraska. Dr. Forrest had practiced medicine in Council Bluffs since 1966.

Dr. H. H. Wolf recently observed his 40th year in the practice of medicine at Elgin. A 1929 graduate of the University of Illinois School of Medicine, Dr. Wolf served his internship at Cook County Hospital and took a residency at the Woodlawn Hospital in Chicago. He began the practice of medicine in Elgin on January 9, 1932.

Dr. Charles Griffin has closed his office in Dyersville to become a full-time member of the emergency room staff at Mercy Hospital in Cedar Rapids.

Dr. Rafael A. Roure, of Glenwood, and **Dr. John G. Lavender**, of George, served as delegates to the Republican National Convention in Miami August 21-23. Dr. Roure was a delegate from the Fifth District and Dr. Lavender a delegate from the Sixth District.

DEATHS

Dr. Samuel D. Poore, 50, of Villisca, died at his home June 22. Dr. Poore had practiced medicine in Villisca since 1949. A graduate of the University of Tennessee College of Medicine, he was a member of the Iowa Medical Society and American Medical Association.

Dr. T. A. Burke, 87, longtime physician and surgeon in Mason City, died July 19. Dr. Burke was one of the founders of the Mercy Hospital Medical Staff in 1920; served as the first secretary and later as president in 1928-1929. He started his medical practice in Mason City in 1917. For five years previous, he had practiced in Britt. A 1909 graduate of the Chicago College of Medicine and Surgery, Dr. Burke was a past president of the Mason City Lions Club and the Cerro Gordo County Medical Society. He was a life member of the Elks and the Iowa Medical Society.



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No charge is made for the ads of members, wives of deceased members of the Iowa Medical Society or physicians seeking Iowa locations; for others the cost is $1.00 per line, $5.00 minimum per insertion. Copy for ad must be received by the seventh of the month for the following issue. Send to JOURNAL OF THE IOWA MEDICAL SOCIETY, 1001 Grand, West Des Moines 50265.

GENERAL PRACTITIONER NEEDED: Practice with complete freedom of action in a rural atmosphere? Office next to pharmacy, ready for occupancy, no unseen strings. Moville, Iowa, 15 miles east of Sioux City offers just such a chance. Contact Moville Community Development Association, Inc., Moville, Iowa.

IMMEDIATE OPENING for Ob-Gyn, Internal Medicine, and Orthopedic specialties to establish successful practice with 14-man multi-specialty group. Excellent group benefits; pension plan; modern clinic facilities; progressive community with excellent educational system including two colleges; city population 35,000; good recreational facilities; each specialty must be board eligible or certified; young man with military obligation completed. Contact: Business Manager, The Manitowoc Clinic, 601 Reed Avenue, Manitowoc, Wisconsin 54220.

WANTED—Doctor by a group of three general practitioners in Winterset, Iowa. Nationality or religion not a factor. Regular time off. No capital required. Town has forty-bed hospital, new high school, good swimming pool, golf course, library. Thirty minutes from downtown Des Moines. Write or telephone Drs. Chesnut, Evans, Rozeboom, 115 West Court Avenue, Winterset, Iowa 50273. 515-462-1040.

FOR SALE—Ritter Motor Chair, $350; Ritter Stool, $35; ENT Cabinet with motor, $75; Maico 28 Audiometer (ASA), $150; Pelton Sterilizer, 16×6×4 (New), $80; EENT Cameron Cautoradio, $50; Ur-O-con CL edge inspector, $35; Corneal Rust Ring Remover, $25; Allen Thorp B&L Gonioscope, $25; Presbyopic Trial Lens Set, $25; Lancaster Eye Magnet, $25; Radiuscope, like new, $400; Automatic C. L. edge Polisher (WJ), $75; AO Thermojet Frame Warmer, $25; B&L PD Meter, $20; B&L Microscope, $35; Refraction Trial Frame, $25; AO Projecto Chart, $25; Black Light C. L. Inspection Light, $25; Glasses Adjustment Tools, $3. to $4. each and many EENT examining, surgical and endoscopic instruments at greatly reduced prices. Write or call Marshall D. Huston, M.D., 2112 Merner Avenue, Cedar Falls, Iowa 50613. 319-266-3792.

WANTED—Family practitioner or internist to join five-physician group. Equitable division of work, income, vacation and postgraduate education. Address your inquiry to Fort Dodge Clinic, 1005 Second Avenue, North, Fort Dodge, Iowa 50501.

EXPANDING ELEVEN MAN GROUP has openings for an Ophthalmologist, General Practitioner or Family Practice Physician, General Surgeon and Internist. New Clinic building. University city. One hour from St. Paul. Summer and winter recreation unlimited. Will finance travel for interview. Call or write A. A. Drescher, M.D., or Russell Peterson, Clinic Manager, P. O. Box 337, Menomonie, Wisconsin 54751. Telephone 715-235-9671.

SEVEN-MAN GROUP badly in need of a general surgeon certified or board eligible. Prefer subspecialty thoracic and vascular. Excellent clinic facilities. Located in a city of 80,000 in Northeastern Iowa with university in metropolitan area. Salary negotiable, partnership at the end of second year. Address your inquiry to No. 1481, Journal of the Iowa Medical Society, 1001 Grand Avenue, West Des Moines, Iowa 50265.

ORTHOPEDIC SURGEON, certified or board eligible to join a seven-man group in Northeastern Iowa. Excellent clinic facilities complete with x-ray suites, physical therapy department, and laboratory department. Good hospital facilities available in the area. This is an excellent opportunity for the right man. Partnership after the second year. Write No. 1482, Journal of the Iowa Medical Society, 1001 Grand Avenue, West Des Moines, Iowa 50265.

WANTED—Family practitioner to join 5-man group. Particularly interested in doctor who wants to do O.B. or anesthesia. New clinic building with all supporting services near new 50-bed hospital. Call or write J. W. Rathe, M.D., Rohlf Memorial Clinic, Waverly, Iowa 50677. 319-352-4340.

EMERGENCY ROOM PHYSICIAN needed for 350-bed hospital. Friesen Concept addition will be completed Fall of 1973. Twenty-four hour physician coverage of E.R. at present time. Salary negotiable. Can be a temporary or permanent arrangement. Contact Personnel Office, Mercy Hospital, 6th & University, Des Moines, Iowa 50314.

LOCUM TENENS POSITION—AVAILABLE IMMEDIATELY. Des Moines physician desires general practitioner or internist for short-term assistance. For further information call or write Louis Goldberg, M.D., 4001 Ingersoll, Des Moines, Iowa 50312. 515-274-1518.

PHYSICIAN licensed in any one of the 50 States or District of Columbia to join staff in active Outpatient Service of University-affiliated, modern 362 bed GM&S VA Hospital, Des Moines, Iowa. Starting salary dependent on qualifications with periodic increases for satisfactory performance and cost of living. Liberal fringe benefits including annual and sick leave, retirement, health and life insurance. Nondiscrimination in employment. F. M. Burgeson, M.D., Chief, Outpatient Service. Contact George T. Mellinger, M.D., Chief of Staff, VA Hospital, Des Moines, Iowa 50310.

FOR SALE—Fully-equipped medical office building 8 years old, suitable for 2 physicians, in Mt. Pleasant. Available September 1. Attractive practice opportunity. Contact Phillip G. Couchman, M.D., 202 N. Jackson St., Mt. Pleasant, Iowa 52641. Phone: 319-385-2122.

PHYSICIANS NEEDED—Orthopedic and general surgeons, urologists, internists, ob-gynecologists, and general practitioners to establish independent practice in Petoskey, Michigan—the Midwest's Skiing Mecca and world famous resort community. Local college, excellent schools, seasonal sports, summer and winter concerts. A great selection of restaurants, theatre, hunting, fishing, golfing, sailing, unique and unusual summer shops, and frequent airline service make this an unrivaled living area. New acute care, general hospital will provide one year's rental on adjacent luxurious office suites, moving stipend, and negotiate other financial arrangements. Contact Milton D. Rasmussen, Administrator, or Wendell C. Trent, Asst. Administrator, Lockwood MacDonald Hospital, Petoskey, Michigan 49770. 616-347-3985.

WANTED NOW—General practitioner, internist, pediatrician, and obstetrician-gynecologist in moderate sized Iowa community. Practice opportunities excellent. Address your inquiry to No. 1478, Journal of the Iowa Medical Society, 1001 Grand Avenue, West Des Moines, Iowa 50265.

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WHERE YOU LAND—23 IN IOWA

YOU'VE PROBABLY played Monopoly. In this popular and venerable parlor game *Boardwalk* and *Park Place* are choice properties. Their owners are usually envied by the other players. These parcels far outshine *Baltic Avenue* or *Marvin's Gardens* in investment potential. In this game skill and judgment are marginally involved; however, the throw of the dice is more likely to determine the outcome of the game. It all depends on *where you land.*

Where you land!

This provocative phrase is applicable, quite obviously, to the game of life. All manner of influences, perhaps even on rare occasions the roll of the dice or a draw from the hat, will determine *where you land.* More likely than not, however, a matter of this magnitude, where you will live, work and raise a family, will involve serious contemplation, consideration, study and thoughtful decision.

Persons who do evaluate their future seriously in terms of place of residence and potential lifestyle deserve commendation. *Where they'll land* is not left to happenstance or harem-scarem election. They take a careful look at the opportunities, equate them with their capabilities, desires, etc., and choose locations and situations in accordance with their wishes and goals.

HELP IN THE LANDING

In the process of accomplishing the preceding, various sources of information and help are available and are used by many. To do so is both obvious and logical. Whether one is a poultryman, a picador, a philatelist or a physician, he should select his base of operation on an informed basis with some assurance as to the likelihood of success and happiness in the pursuit of his occupational endeavor.

Various sources of assistance and information exist to help the young physician determine where he'll nail his shingle and raise his family. As a much-sought-after individual he exercises wisdom when he avoids deciding hastily on tinseled propositions which may in time be found wanting. Instead, as has been implied, he should be encouraged to use the extensive data which are available to assist him in selecting a practice location, in determining the degree of association with others he may want, the amount of specialization he desires, etc.

Among its programs the Iowa Medical Society provides *In The Public Interest* a Physicians' Placement Service. This Society Service attempts to be helpful in a manner to which we have alluded. The IMS Placement Service offers aid to (1) those Iowa communities seeking medical practitioners, (2) those Iowa physicians who are looking for associates, and (3) those physicians who are interested in practice locations in the State of Iowa. Obviously, those in categories 1 and 2 far exceed in number those in 3.

The Iowa Medical Society Physicians' Placement Service has been active for many years. Right now nearly 100 Iowa communities are registered with the Placement Service and to them is provided information on physicians whose expressed desires (in terms of location, size of community, facilities, etc.) dovetail with the characteristics of the various cities and towns.

CONTACT WITH SENIORS

Routinely, the Society establishes contact with the about-to-graduate seniors in The University of Iowa College of Medicine. In addition to expressing congratulations on their educational achievement to this point, the Society requests informa-

tion as to the student's internship plans, i.e., his anticipated location for the ensuing year or more. Then, as a follow-up of this, another communication is directed to the graduate-intern as he approaches the close of his first year out of medical school. At this time a further offer of assistance is made. The neophyte physicians are invited to use the informational resources of the Society's Placement Service to become aware of the opportunities which exist in Iowa. At the same time they are requested to advise the Society of their career plans, particularly for the upcoming few years. Do they intend to specialize? Are they going into a residency? Are they entering the military service?

These more or less routine or scheduled communications lead to specialized or individualized correspondence with as many as 100 or more potential Iowa practitioners during the course of a year. In addition, coming in over the transom in a year's time are numerous inquiries from physicians in other states or countries. These doctors are interested in Iowa's practice opportunities. To date in 1972 the Placement Service has received and processed inquiries from 318 physicians, and in line with the wishes of these individuals the Service has directed word of their interest to communities with the characteristics sought by the inquiring physician. There have been 46 Iowa communities with which the Iowa Medical Society has had more than incidental contact in the first half of 1972 regarding medical manpower needs.

MORE SPECIALIST INQUIRIES

While the 318 figure (in the preceding paragraph) might be considered a basis for much optimism, it should be understood that a large majority of these inquiring physicians are in a specialty field; only about 30 of the group are general or family practitioners. In the case of specialist inquiries, the Society's Placement Service provides the names to communities or physician groups seeking that particular type of specialization. They are also given the names and addresses of the officers of state specialty organizations so they may use this additional means of discovering possible openings.

Well, how do you evaluate this effort? Is it productive? Is it worth the investment of time and expense? Recent performance would suggest that it is. The present and impending scarcity of medical manpower has been a grave topic before many local committees and councils across the State. No case is made here to refute the seriousness of the matter.

23 NEW DOCTORS

It is heartening however to note in the past six weeks to two months at least 23 new physicians have entered practice in Iowa. There are undoubtedly others, perhaps quite a few, but we have come across information concerning 23.

What type of community are these practitioners settling in? They about cover the Iowa spectrum: Red Oak, Waukon, Bloomfield, Humboldt, Estherville, Sibley, Sioux City, Clinton, Mason City, Clarinda, Fort Dodge, Iowa City, Hamburg, Denison, Waverly, Story City, DeWitt, Decorah and Des Moines.

You know what's particularly gratifying to the Iowa Medical Society Physicians' Placement Service? Well over half of these newcomers had some form of contact with the Service. The significance of this contact is not known in most cases in terms of how much it did to persuade these physicians to land in Iowa. Even so and while it may be a mite presumptuous, the Medical Society can claim some part in the presence of 23 new physicians in Iowa this summer.

GROUNDS FOR OPTIMISM

Believing the arrival of 23 new doctors constitutes any kind of a turning point in the manpower situation is a risky supposition. But when factors such as this are combined with other favorable reports there is at least a basis for optimistic thinking. For example, one recent report indicates the number of physicians taking graduate training in Iowa to become family physicians has increased from six to 24 in a year's time. Robert E. Rakel, M.D., head of The U. of I. DFP, has predicted 78 family practice residents within five years.

Selling young physicians on the Iowa lifestyle has been the mission of the Iowa Medical Society Physicians' Placement Service for some time. These efforts will be continued and stepped up as possible. Hopefully, more and more young doctors will equate Iowa with *Boardwalk* and *Park Place* and select it as the place *where they want to land!*—DN

Doctor's Business

by LARRY E. LEAVERTON

IMPROVED APPOINTMENT SCHEDULING CAN INCREASE PRODUCTIVE TIME

The price freeze has forced many physicians to look seriously at their appointment scheduling. Despite the curbed increases in major practice expenses such as salaries, rent and supplies, total expenses are still rising. Averages of medical practices maintained by our firm show an increase in total practice expenses per doctor from $31,800 in 1970 to $36,700 in 1971. Some of this is due to increased space and additional employees. To meet these increased expenses while holding the line on fees physicians have the alternatives of seeing more patients, working harder and longer, or seeing more patients in the same amount of time. Possibly you are working at peak efficiency now. If this is so and your profit margin is below the prescribed percentage limits you may be able to get some relief through the minimal fee increases which are allowed. If you are not as productive as you could be, a way to increase your productivity may be through better appointment scheduling.

First, you must have the proper tools for the job. You should have an appointment book flexible enough to allow exact times for your common procedures. Many standard appointment books list improper time intervals for a specific practice. If you have procedures which take minimal time (5-10 minutes), a book with 15 minute intervals is inadequate. Space should be available to show the purpose of the call in abbreviations so your staff can be prepared. Telephone numbers should appear if rescheduling is necesary and there should be a designation for new or old patient. If your practice is one where preliminary work is done before the doctor is seen, an additional column for the medical assistant or technician is a good idea. While many appointment books are available commercially, you can benefit by designing your own and having it printed locally.

Mr. Leaverton is Director of Research and Development for Professional Management Midwest.

Why is it that one medical office can handle a large volume with apparent ease while another is constantly behind schedule with a lesser volume? In reviewing appointment books and systems with many physicians we find the common problems in addition to an inadequate book, are too little time allowed for some patients and too much for others, and not enough emergency time. The medical assistant charged with making appointments must know the proper time to allot to each common procedure.

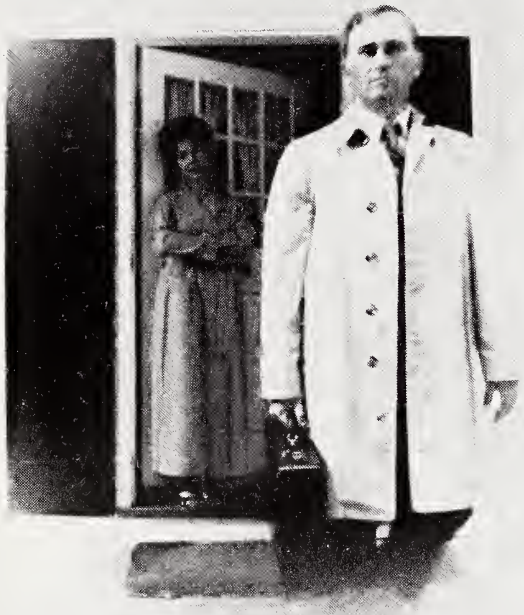
Phone calls, emergencies and other interruptions can play havoc with an appointment system. An answer to excessive phone calls is to train an assistant to screen calls to determine emergencies and urgency, and to accumulate the necessary information for the calls she can't handle. It is good public relations and common courtesy to inform callers approximately what time the call will be returned.

In group practice, staggered office hours and days are an aid to more productive scheduling, and a way to fully utilize expensive space and staff. Many offices are planned to provide all doctors in the group with a full suite when in reality there are few days and hours when all are in the office at one time. An increasing number of doctors are using morning office hours to good advantage.

The advantages of a good workable appointment system are many. In addition to the efficient and most productive use of the physician's time, the patient also benefits. Too many offices are inconsiderate of the patient's time. Time spent waiting for medical attention can substantially increase the cost of medical care for many people when you consider the loss of their own productive time.

Some offices unable to cope with a jammed appointment book are announcing they will accept no new patients. Others are telling patients with definite problems they cannot get appointments for weeks or months. Neither of these solutions are good public relations. They should be used only as a last resort after attempting to ease the problem through more efficient scheduling, more delegating to assistants, and weeding out undesirable or uncooperative patients.

Will his return to work mean the return of undue psychic tension?



When it's mandatory to keep the post-coronary patient calm, consider Valium (diazepam).

Although he's promised to take it easy back on the job, you know he's going back to the same stressful circumstances that may have contributed to his hospitalization. If he experiences excessive anxiety and tension because of overreaction to stress, your prescription for Valium can bring relief. During the period of readjustment Valium can quiet undue anxiety.

For moderate states of psychic tension, 5-mg or 2-mg Valium tablets *b.i.d.* to *q.i.d.* can usually provide reliable relief. For severe tension/anxiety states, the 10-mg tablets often produce desired results.

The most commonly reported side effects are drowsiness, ataxia and fatigue. Until individual response is determined, caution patient against driving or operating dangerous machinery.

Valium® (diazepam)

For the tense cardiac patient who must be kept calm

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. *Adults*: Tension, anxiety and psychoneurotic states, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients*: 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children*: 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

Supplied: Valium® (diazepam) Tablets, 2 mg, 5 mg and 10 mg; bottles of 100 and 500. All strengths also available in Tel-E-Dose® packages of 1000.

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Additional information available to the profession on request.

- Cardiomyopathy-Case Discussion—Page 527
- Coccidioidomycosis in Iowa—Page 531
- HMO Update—Public Interest Page

OCTOBER 1972



Everybody experiences psychic tension.



Most people can handle this tension.



Some people develop excessive psychic tension and need your counselin



and a few may need counseling
and the psychotropic action of Valium® (diazepam).

Before deciding to make Valium diazepam) part of your treatment plan, check on whether or not the patient is presently taking drugs and, if so, what his response has been. Along with the medical and ocial history, this information can help you determine initial dosage, he possibility of side effects and he ultimate prospects of success r failure.

While Valium can be a most helpful adjunct to your counseling, t should be prescribed only as long s excessive psychic tension persists and should be discontinued when you decide it has accomplished its therapeutic task. In general, when dosage guidelines re followed, Valium is well olerated (see Dosage). For convenience it is available in 2-mg, 5-mg nd 10-mg tablets.

Drowsiness, fatigue and ataxia have been the most commonly reported side effects.

Until response is determined, patients receiving Valium should be cautioned against engaging in hazardous occupations requiring omplete mental alertness, such s driving or operating machinery.

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Before prescribing, please consult complete product information, a summary of which follows:

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Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

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Supplied: Valium® (diazepam) Tablets, 2 mg, 5 mg and 10 mg; bottles of 100 and 500. All strengths also available in Tel-E-Dose® packages of 1000.

Valium®
(diazepam)

To help you manage excessive psychic tension

President's Page



Next month, on Tuesday, November 7, 1.9 million Iowans will have the privilege of expressing themselves at the polls. Regrettably, the importance of the election process is minimized by many and is totally ignored by more than a few. The state's record presidential vote came in 1952 when Dwight Eisenhower defeated Adlai Stevenson, and 1.2 million Iowans voted.

This year 340,000 young Iowans will have their first chance to vote for a presidential candidate. There are 160,000 who have turned 18 since the voting age was lowered, and there are 180,000 slightly older voters who missed being 21 for the 1968 presidential election.

The experts predict an election turn-out far under the 1952 record. This is always disturbing to hear. The right to vote is a freedom we must protect and preserve.

The task of electing government officials is arduous, yet satisfying and exciting. Most blueprints for citizen participation in the election process call for (1) studying the issues, (2) persuading able persons to run, (3) identifying the candidate who comes closest to representing your point of view, (4) supporting that candidate physically and fiscally, and (5) getting out the vote (including your own) in his behalf.

Hear this plea—the vote is a precious instrument. Use it regularly and thoughtfully. REMEMBER—Tuesday, November 7, 1972—VOTE!!



President

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IOWA Medical Miscellany

REAPPORTIONMENT STUDY . . . Scheduled to meet October 25 is the Society's Ad Hoc Committee to Study Reapportionment of the House of Delegates. As ordered by the 1972 House, this Committee is considering alternatives to the present means of determining delegate representation. The Committee met on September 6.



PAY TRIBUTE . . . In Iowa City September 15 to honor Rubin Flocks, M.D., were from left Hugh Jewett, M.D., professor of urology, Johns Hopkins University; Dr. Flocks; Willoughby Kittredge, M.D., chief urology consultant, Ochsner Clinic, New Orleans; Anthony Walsh, M.D., professor of urology, University of Dublin, Ireland; and David Culp, M.D., professor and vice-chairman of The U. of I. urology department. Additional coverage of the event honoring Dr. Flocks is scheduled for the November issue of the JOURNAL.

DISCUSS HMO's . . . Society Treasurer Tom Burcham, M.D., and IMS Legal Counsel R. B. Throckmorton appeared at a late August hearing of the Legislative Study Committee on HMO's. In a prepared statement, Dr. Burcham cited 3

SEE IN THE PUBLIC INTEREST FOR MORE ON HMO'S

basic principles IMS believes should be in any HMO legislation: (1) provision for physicians' services through contractual arrangement, not through employment; (2) maintenance of alternatives to HMO's; and (3) sharing of HMO authorization rights by the Health and Insurance Commissioners.

'73 SCIENTIFIC SESSIONS . . . Nearly 200 reservations have been received for the 1973 Scientific Sessions of the Iowa Medical Society to occur March 29 to April 2 at Paradise Island in Nassau, Bahamas. The unique and attractive continuing education program remains open to additional Iowa physicians. Per person cost for travel and accommodations (no meals) at the Paradise Island Hotel and Villas is $240 for four nights and five days. An outstanding array of subjects and speakers is being arranged by the 1973 Program Committee. Topics include adolescent problems, medical emergencies, medical and surgical treatment of coronary artery disease, etc. Emphasis will be on situations which face the physician in his day-to-day practice. A recent IMS NEWS BULLETIN to Society members described the program in greater detail. Interested Iowa physicians are urged to contact IMS Headquarters for reservation forms . . . . **MARCH 29-APRIL 2 IN THE BAHAMAS.**

LEGISLATIVE PRIORITIES . . . At September 6 meeting IMS Legislative Committee assigned priority status to two subject areas: (1) legislation authorizing establishment of health maintenance organizations, and (2) legislation allowing physicians to serve on the boards of county hospitals. These two topics will receive principal Society attention during the 1973 Iowa General Assembly.

FOUNDATION ACTIVITY . . . The Iowa Foundation for Medical Care now has a majority of Iowa physicians as members. Foundation's fall programming includes current series of briefings for district peer review committee members. Five such sessions have occurred with two more planned for October.

FAMILY PLANNING PROJECTS . . . Certain medical services are included in a federal program which is labelled family planning and which serves indigent women. Local or regional agencies (Planned Parenthood, OEO) must originate program and apply for funds. Maternal and Child Health Division of State Department of Health is the state point of coordination.

(Please turn to page 544)

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State Department of Health

ARNOLD M. REEVE, M.D., M.P.H., Commissioner

IMMUNIZATION STATUS OF IOWA CHILDREN

A mail survey of parents of children born in Iowa from January through September 1970 has been conducted by the Preventive Medical Service and the Records and Statistics Division of the State Department of Health. The children were 15 to 18 months of age at the time of the survey.

The Table shows the number of questionnaires delivered to parents (88.7 per cent of the total births during the period), the number of parents who responded, and the vaccination percentages given by the responding parents for their children for certain selected diseases.

The data in the Table pertain to the 16,595 children whose parents responded to the questionnaire. This is approximately one-half of the children born during this period. The question presents itself as to the immunization status of the children of parents who did not respond. While no data are available on this particular group of non-responders, an earlier smaller study was done on the immunization status of children of non-responding parents. The findings of that study suggest the immunization status for DPT and polio is comparable to the group whose parents responded. For measles and rubella the level is somewhat lower among the non-responders than among the responders.

PLEASE SEE IMMUNIZATION TABLES ON FOLLOWING TWO PAGES

THANK IOWA PHYSICIANS FOR INSTRUCTIONAL SUPPORT

A more complete report on Emergency Medical Service activities will be provided soon; however, the Iowa State Department of Health wishes to thank the many physicians who have been involved in the Emergency Medical Technician-Ambulance Training Course. Since October 1971, a total of 37 classes for ambulance personnel have been conducted with over 900 students from 105 communities enrolled. These classes present the course prepared for the National Highway Safety Bureau and involve 71 hours of classroom instruction and at least 10 hours of clinical experience in a hospital. Instructor's lesson plans and other materials are provided for those doing the teaching. They are conducted by the area colleges, under contract with the State Department of Health. Many of the classes are held in the local hospitals. Graduates of this course receive a certificate and patch from the State Department of Health identifying them as Emergency Medical Technician-Ambulance personnel (EMT-A's).

The majority of the instruction is done by physicians. The physicians of Iowa have been very cooperative and helpful in teaching this course. The enthusiastic manner in which both physicians and students have approached the course has been most encouraging. We have had reports of greatly improved care. Specific lives have reportedly been saved due to this training of EMT-A's. Many classes are scheduled or being planned to begin this fall and winter. We anticipate well over 1,000 more ambulance attendants will be trained. We sincerely hope the physicians of Iowa will continue to participate enthusiastically in this program directed toward improvement of Emergency Medical Services in Iowa.

COUNTY	QUEST. DEL.	PARENTS RESPOND	DPT% 3-4 DOSES	DPT% 2 DOSES	POLIO % 3-4 DOSES	POLIO % 2 DOSES	MEASLES %	RUBELLA %	MUMPS %
ADAIR	86	54	92.6	3.7	53.7	38.9	64.8	51.9	46.3
ADAMS	60	29	82.8	10.3	51.7	34.5	62.1	55.2	41.4
ALLAMAKEE	126	67	85.1	9.0	52.2	41.8	67.2	41.8	28.4
APPANOOSE	131	70	80.0	1.4	44.3	31.4	61.4	45.7	41.4
AUDUBON	79	45	95.6		68.9	24.4	66.7	44.4	33.3
BENTON	230	115	91.3	2.6	73.0	20.0	78.3	64.3	47.0
BLACK HAWK	1559	892	83.3	3.6	55.3	27.8	71.6	49.3	39.1
BOONE	273	130	87.7	5.4	57.7	33.8	74.6	53.8	56.9
BREMER	240	138	93.5	1.4	59.4	31.2	82.6	68.8	27.5
BUCHANAN	261	121	87.6	5.0	64.5	19.8	66.1	53.7	33.9
BUENA VISTA	197	109	92.7	.9	48.6	39.4	69.7	35.8	25.7
BUTLER	194	112	91.1	1.8	67.0	22.3	78.6	51.8	42.9
CALHOUN	132	68	91.2	2.9	45.6	44.1	70.6	61.8	52.9
CARROLL	251	131	84.7	4.6	60.3	22.1	54.2	28.2	24.4
CASS	172	85	89.4	4.7	31.8	47.1	65.9	48.2	48.2
CEDAR	174	82	91.5	1.2	57.3	34.1	75.6	52.4	36.6
CERRO GORDO	521	266	86.1	3.0	69.5	16.2	72.6	56.8	60.2
CHEROKEE	176	86	89.5	1.2	50.0	36.0	65.1	55.8	55.8
CHICKASAW	160	82	90.2	3.7	73.2	15.9	73.2	58.5	50.0
CLARKE	78	39	94.9	2.6	84.6	7.7	74.4	59.0	51.3
CLAY	213	100	91.0	2.0	56.0	31.0	64.0	41.0	47.0
CLAYTON	177	81	91.4	1.2	63.0	24.7	71.6	55.6	45.7
CLINTON	679	352	83.0	3.4	69.0	14.2	67.6	51.1	21.6
CRAWFORD	246	138	89.1	3.6	41.3	42.0	60.9	45.7	25.4
DALLAS	312	148	86.5	3.4	42.6	42.6	68.9	51.4	43.2
DAVIS	83	36	80.6	11.1	58.3	16.7	55.6	41.7	36.1
DECATUR	81	31	90.3		58.1	12.9	51.6	48.4	45.2
DELAWARE	239	128	90.6	1.6	40.6	44.5	64.1	41.4	20.3
DES MOINES	522	274	80.3	2.2	52.9	25.9	64.2	38.0	27.7
DICKINSON	121	66	89.4	1.5	48.5	34.8	63.6	47.0	34.8
DUBUQUE	1217	667	89.1	2.7	55.6	31.3	75.1	52.6	10.9
EMMET	144	76	93.4		25.0	61.8	68.4	55.3	47.4
FAYETTE	282	143	90.9	2.1	53.1	32.9	53.8	32.9	25.9
FLOYD	212	122	86.1	3.3	69.7	16.4	65.6	41.0	29.5
FRANKLIN	128	75	90.7	1.3	46.7	45.3	69.3	52.0	46.7
FREMONT	63	30	93.3		40.0	53.3	70.0	63.3	66.7
GREENE	119	67	79.1	1.5	49.3	32.8	53.7	49.3	46.3
GRUNDY	143	88	90.9	3.4	61.4	29.5	73.9	53.4	54.5
GUTHRIE	116	54	88.9	5.6	61.1	27.8	74.1	48.1	38.9
HAMILTON	213	108	87.0	1.9	63.0	25.9	75.0	55.6	50.0
HANCOCK	141	86	91.9	1.2	48.8	43.0	64.0	39.5	16.3
HARDIN	206	128	91.4	.8	54.7	32.8	70.3	60.9	53.1
HARRISON	161	83	85.5	4.8	50.6	34.9	59.0	45.8	38.6
HENRY	192	104	88.5	4.8	45.2	42.3	79.8	52.9	37.5
HOWARD	104	56	80.4	10.7	33.9	50.0	80.4	66.1	64.3
HUMBOLDT	112	55	89.1	1.8	70.9	20.0	74.5	45.5	41.8
IDA	73	34	85.3	8.8	67.6	17.6	50.0	47.1	38.2
IOWA	185	104	92.3	2.9	64.4	27.9	67.3	43.3	30.8
JACKSON	260	122	86.1	4.9	45.1	41.8	64.8	45.9	32.8
JASPER	414	223	85.7	4.0	41.7	48.0	70.4	54.7	30.5
JEFFERSON	155	76	89.5		56.6	26.3	73.7	40.8	35.5
JOHNSON	986	621	82.8	1.9	72.3	10.1	70.4	49.4	22.1
JONES	245	117	82.1	5.1	32.5	49.6	64.1	42.7	29.9
KEOKUK	139	66	87.9	6.1	60.6	27.3	59.1	30.3	21.2
KOSSUTH	234	142	93.0	1.4	56.3	32.4	58.5	38.0	28.9
LEE	463	224	83.9	3.6	53.6	29.0	73.2	51.8	44.2
LINN	2054	1147	85.6	3.2	66.3	20.0	75.0	54.9	35.0

COUNTY	QUEST. DEL.	PARENTS RESPOND	DPT % 3-4 DOSES	DPT % 2 DOSES	POLIO % 3-4 DOSES	POLIO % 2 DOSES	MEASLES %	RUBELLA %	MUMPS %
LOUISA	96	41	80.5	4.9	56.1	22.0	73.2	58.5	43.9
LUCAS	92	54	90.7	1.9	55.6	29.6	70.4	59.3	50.0
LYON	125	70	91.4	2.9	62.9	27.1	68.6	55.7	55.7
MADISON	116	61	85.2		63.9	14.8	67.2	47.5	45.9
MAHASKA	211	105	81.0	2.9	47.6	31.4	66.7	41.0	28.6
MARION	272	153	89.5	3.3	45.1	43.8	63.4	43.1	42.5
MARSHALL	491	241	88.8	1.7	35.7	46.9	74.7	57.7	33.6
MILLS	94	40	80.0	7.5	57.5	25.0	55.0	40.0	27.5
MITCHELL	142	81	85.2	7.4	40.7	48.1	67.9	42.0	33.3
MONONA	112	59	89.8	1.7	64.4	23.7	67.8	47.5	55.9
MONROE	77	35	77.1	8.6	37.1	45.7	62.9	45.7	25.7
MONTGOMERY	127	67	83.6	9.0	62.7	28.4	71.6	65.7	59.7
MUSCATINE	451	223	78.9	3.1	40.8	35.9	67.7	52.9	24.2
O'BRIEN	181	92	85.9	3.3	48.9	39.1	53.3	35.9	30.4
OSCEOLA	83	48	91.7	2.1	64.6	31.3	58.3	35.4	18.8
PAGE	161	97	82.5	5.2	28.9	53.6	67.0	39.2	32.0
PALO ALTO	135	69	95.7	2.9	46.4	46.4	60.9	36.2	10.1
PLYMOUTH	302	170	83.5	3.5	66.5	19.4	71.8	51.2	44.1
POCAHONTAS	123	69	85.5	4.3	68.1	23.2	59.4	39.1	30.4
POLK	3380	1749	79.5	3.0	64.0	16.0	68.2	45.9	36.4
POTTAWATTAMIE	818	391	80.1	3.8	58.3	21.5	64.2	38.4	17.6
POWESHIEK	189	100	88.0	1.0	55.0	31.0	70.0	37.0	25.0
RINGGOLD	57	30	86.7	6.7	36.7	43.3	73.3	53.3	53.3
SAC	153	81	82.7	6.2	55.6	28.4	64.2	29.6	33.3
SCOTT	1723	911	78.8	3.5	63.2	15.6	65.9	41.5	28.3
SHELBY	151	77	88.3	2.6	45.5	35.1	76.6	75.3	68.8
SIOUX	333	173	90.8	5.2	42.8	48.0	67.6	37.0	28.9
STORY	747	484	84.7	2.7	69.8	16.9	76.0	64.7	59.9
TAMA	203	114	86.0	2.6	61.4	23.7	61.4	42.1	32.5
TAYLOR	66	32	90.6	6.3	40.6	43.8	62.5	40.6	37.5
UNION	135	48	79.2	4.2	68.8	8.3	60.4	56.3	50.0
VAN BUREN	66	33	84.8	6.1	45.5	30.3	54.4	36.4	36.4
WAPELLO	407	208	77.4	3.4	37.5	39.9	61.1	22.6	14.9
WARREN	389	197	84.8	3.0	67.0	15.7	71.1	51.3	40.1
WASHINGTON	195	98	88.8	3.1	39.8	50.0	63.3	50.0	39.8
WAYNE	60	28	89.3		46.4	42.9	78.6	71.4	64.3
WEBSTER	483	248	83.9	2.4	55.2	27.4	69.4	51.2	35.5
WINNEBAGO	88	39	94.9	5.1	51.3	43.6	76.9	51.3	35.9
WINNESHIEK	225	132	90.9	1.5	43.9	47.0	67.4	54.5	50.8
WOODBURY	1229	625	80.0	4.0	57.9	24.2	68.2	46.2	29.8
WORTH	74	44	81.8	9.1	59.1	34.1	65.9	54.5	45.5
WRIGHT	164	85	88.2	4.7	28.2	62.4	69.4	51.8	32.9
Total (State)	31,262	16,595	84.8	3.2	57.3	27.0	68.9	48.4	34.8

I REMEMBER WHEN—DO YOU?

A smallpox epidemic developed in Minneapolis in 1924 during my days as a medical student. A fellow student and I were asked to help a local practitioner in his office in North Minneapolis. Literally hundreds of patients came to be vaccinated. For three hours the two of us vaccinated 200 or more patients at $1 a vaccination. Those with no money got it free. It was during this period I learned graphically the difference between smallpox and chicken pox in terms of the eruption lesions. Smallpox erupted entirely in the first 24 hours, and chicken pox lesions erupted at various stages over a period of three days. This was of great value in the early days of my practice. And now, smallpox is eradicated to the point where vaccination is being eliminated. When will it return?—OTTO N. GLESNE, M.D., *Chairman, IMS Historical Committee.*

Radiology Window

CASE NO. 6

This 37-year-old female was seen in the radiology department as an out-patient for a routine cholecystography evaluation. Her complaints were nausea with epigastric discomfort and dyspepsia.

Please interpret the x-ray film and select the probable diagnosis from the following:

1) **Bilobed gall bladder.**
2) **Multiseptate gall bladder.**
3) **Double gall bladder.**
4) **Folding of the gall bladder.**

Please turn to page 556 for the correct diagnosis and a further discussion of the case.

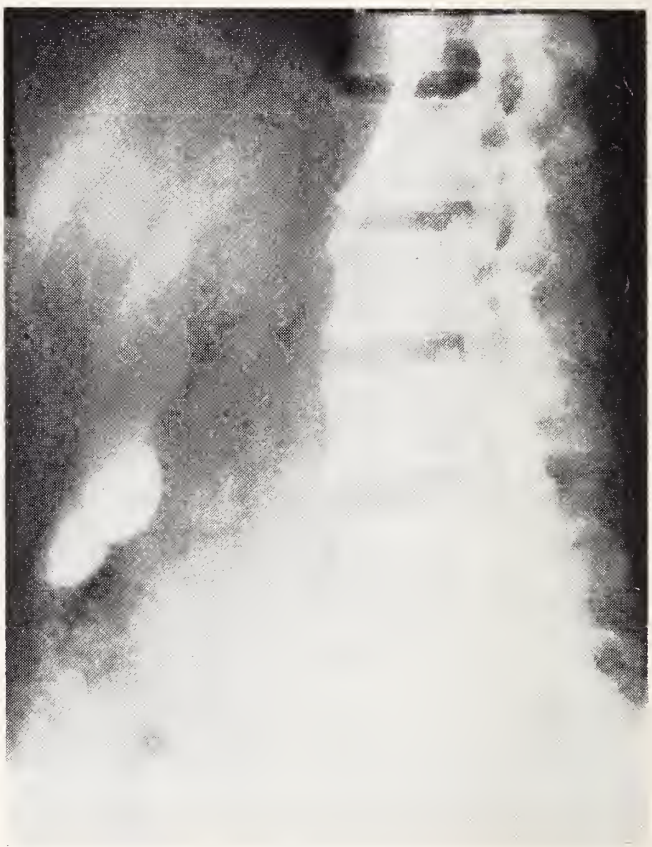


Figure 1

This radiologic feature has been prepared and provided by members of the Radiology Department at Mercy Hospital in Des Moines. The co-authors are N. W. Irving, M.D., R. E. Hines, M.D., B. B. Augsburger, M.D., H. Iyoob, M.D., and B. Houle, a medical student.

CANCER TEACHING DAY SET FOR NOVEMBER 11

A special November 11 cancer program will be presented in Iowa City for the practicing physician under the co-sponsorship of the Office of Continuing Medical Education of The University of Iowa College of Medicine and the Iowa Division of the American Cancer Society.

The special guest speaker will be George E. Block, M.D., who will discuss cancer of the colorectum. Dr. Block is a professor of surgery at the University of Chicago.

U. of I. faculty members will consider the following topics: "The Pill" and Cancer—Do Viruses Cause Cancer?—Mammography in 1972 and Cancer Detection in Every Office!

The program will be presented in the Medical Alumni Auditorium at University Hospital and has been approved for 3½ hours of credit by the American Academy of Family Physicians and the American Medical Association.

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(warning: may be habit forming)
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Non-narcotic for 6-8 hr. cough control

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Clears sinuses and nasal stuffiness as it relieves cough

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ROBITUSSIN A-C®	●	●			
ROBITUSSIN-DM®	●		●		●
ROBITUSSIN-PE®				●	●
COUGH CALMERS®	AHR		AHR		AHR

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University Drug Letter

by ARTHUR A. SPECTOR, M.D.

DRUG TREATMENT OF HYPERLIPIDEMIA

Hyperlipidemia may be defined as a state in which the blood plasma obtained after a 12-14 hour fast has an elevated concentration of cholesterol, triglyceride or both. The upper limits of normal for the plasma cholesterol and triglyceride concentrations are still being debated.[1] For example, the plasma lipid content in healthy American adults is known to increase with age.[2] There is some question as to whether this increase is physiological or is an abnormality associated with aging. Many experts consider any plasma cholesterol concentration of more than 200-220 mg per deciliter to be harmful. However, the use of hypolipidemic drugs usually is reserved for those cases in which, after an adequate trial of dietary therapy, the plasma cholesterol concentration remains above 250 mg %, the plasma triglyceride concentration remains above 200 mg % or both.

Classification. The first thing to do after detecting hyperlipidemia is to analyze a second blood specimen in order to make certain that the elevation is real and persistent. Once this is established, one must determine whether the abnormality is *primary* or *secondary*. Primary hyperlipidemias are disease entities in themselves; they are inherited abnormalities of lipid transport and metabolism. In contrast, the secondary hyperlipidemias result from altered lipid metabolism produced by another recognizable disease. The diagnosis of primary hyperlipidemia often is made through a process of exclusion. In secondary hyperlipidemia, one treats the underlying disease, not the lipid abnormality. The latter almost always will improve when the disease is controlled. Hypolipidemic diets and drugs usually are confined to the treatment of primary hyperlipidemia.

Typing. If the existence of primary hyperlipidemia has been established, it is necessary to classify or "type" the abnormality in order to select the proper form of treatment. Three laboratory tests are essential for typing; plasma *cholesterol* and *triglyceride* concentrations and plasma *lipoprotein* electrophoresis. The blood should be obtained after an overnight fast, and the patient should not be receiving any hypolipidemic medication or dietary treatment at the time of typing. Lipoprotein electrophoresis is crucial because the hyperlipidemias are defined in terms of abnormalities of lipoprotein metabolism. Advances are being made in the quantification of lipoprotein electrophoretograms, but this test is still basically descriptive. At present, one must rely on lipid measurements for quantitative assessments. Table 1 contains the currently accepted classification of the hyperlipidemias,[3] their lipid and lipoprotein abnormalities, and the diets and drugs that are utilized in treatment.

Type I is a hypertriglyceridemia resulting from impaired clearance of chylomicrons from the plasma. This is due to a deficiency of the heparin-sensitive enzyme, lipoprotein lipase. Type I hyperlipoproteinemia is a very rare disease that usually manifests itself in childhood. Type IV also is a hypertriglyceridemia, but the triglyceride accumulates in the plasma in very low density lipoproteins (pre-β). This common defect often is associated with obesity and carbohydrate intolerance. Type V, mixed hyperlipidemia, is a combination of the abnormalities present in Types I and IV. Type IIa is associated with an increase in plasma low density lipoprotein (β), the main cholesterol-carrying plasma lipoprotein. Type IIb is a combination of Types IIa and IV. Type III is characterized by the presence of an abnormal β-lipoprotein that is rich in both cholesterol and triglycerides. Additional details concerning the metabolic defects and clinical symptomatology in each of the types of hyperlipoproteinemia can be found in several recent reviews.[1, 3, 4–6]

Secondary Hyperlipidemia and Typing. A number of diseases may produce hyperlipidemia, and the lipid abnormality usually presents as one of the types listed above.[6] For example, myxedema, porphyria and obstructive liver disease produce a Type II abnormality, whereas diabetes mellitus

Dr. Spector is associated with the Departments of Internal Medicine and Biochemistry at the University of Iowa College of Medicine. This discussion appeared initially in the January, 1972, issue of DRUG LETTER, a monthly intramural publication of University Hospitals prepared jointly by the Pharmacy Department and the Clinical Pharmacology Committee.

produces a Type IV defect. Diabetic acidosis, alcoholism and pancreatitis produce a Type V abnormality. Some diseases can cause more than one type of lipid defect: e.g., nephrosis, Type II, IV or V; myeloma, Type II or V; and dysgammaglobulinemia, Type I or III.

Dietary Therapy. Most cases of primary hyperlipidemia should be treated initially by dietary modification alone. Indeed, in Type I, restriction of dietary fat is the only treatment. In the other types, simple dietary restrictions often will produce dramatic improvements; for example, reducing calories, limiting whiskey and beer intake, or restricting cholesterol-rich foods like eggs and fatty meats. Numerous lipid-lowering diets have been described in detail,[7, 8] and only the basic principles are listed in Table 1. Hypolipidemic drugs should be *reserved* for those cases in which dietary therapy alone does not produce the desired response. Moreover, even when drugs are prescribed, the therapeutic diet *should be continued.*

Clofibrate (Atromid S). The most widely used of the currently available hypolipidemic drugs is clofibrate. It usually produces a beneficial effect in Types IIb, III, and IV, and sometimes may be helpful in Types IIa and V. Some investigators recommend a therapeutic trial with clofibrate in all cases of primary hyperlipidemia except those that are Type I. The recommended daily dosage is 2 gm in four divided doses, but an adequate response often can be obtained on the more convenient schedule of 1 gm twice a day. Clofibrate probably acts by inhibiting the synthesis or release of pre-β-lipoproteins. Side effects include nausea and myalgia, but these are relatively infrequent and usually mild. In patients taking coumarin anticoagulants, administration of clofibrate may further elevate the prothrombin time. This is corrected by reducing the dosage of the anticoagulant by 30-50%.

Cholestyramine (Questran, Cuemid). The best drug for Type IIa is cholestyramine, a bile acid binding resin that is not absorbed from the intestinal tract. In addition, it often is helpful in Type IIb if used in conjunction with clofibrate. From 12-36 gm daily, usually in three divided doses, are needed to obtain a good therapeutic response. Many of the distasteful properties of the original product have been overcome. Yet, most patients find it cumbersome to take cholestyramine. In large doses, it may produce epigastric distress and constipation. These adverse effects often can be minimized by proper administration: it should be added to a suitable beverage such as fruit juice, allowed to remain in contact with the liquid for 5-10 minutes before stirring, and ingested near the end of the meal. Moreover, one should begin treatment with a small dose, 4 gm three times a day, and allow the patient time to adjust to the drug before gradually increasing the dosage until a therapeutic level is reached. Cholestyramine

(Please turn to page 555)

TABLE I
CLASSIFICATION OF THE HYPERLIPIDEMIAS

Type	Prevalence	Plasma Cholesterol	Plasma Triglyceride	Lipoprotein Abnormality	Recommended Diet	Drug of Choice	Other Useful Drugs
I	Extremely rare	Normal or slightly elevated	Very high	Chylomicrons	Low fat[a]		
IIa	Common	Elevated	Normal	Low density (β)	Low cholesterol and saturated fat[b]	Cholestyramine	Nicotinic acid D-thyroxine β-sitosterol Neomycin Clofibrate
IIb	Common	Elevated	Elevated	Low density (β) Very low density (pre-β)	Low cholesterol	Clofibrate	Cholestyramine
III	Occasional	Elevated	Elevated	Floating-β	Low cholesterol	Clofibrate	
IV	Very common	Normal	Elevated	Very low density (pre-β)	Caloric restriction Low carbohydrate	Clofibrate	Nicotinic acid
V	Occasional	Elevated	Elevated	Chylomicrons Very low density (pre-β)	Caloric restriction Low fat[a]		Nicotinic acid Clofibrate Norethindrone acetate[c]

a. Medium-chain triglyceride may be added as a dietary supplement.
b. Polyunsaturated fat may be added as a dietary supplement.
c. Only employed in females.



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SCIENTIFIC ARTICLES

Cardiomyopathy Due to Coxsackie B

HANS S. FRENKEL, M.D.
Clarinda

CARDIAC INVOLVEMENT in viral diseases has been the subject of several recent reviews. Abelmann[1] stated clinically evident heart disease of viral etiology is of low prevalence in any one medical center but that it accounts for an appreciable number of severely ill patients in total. The minimal reporting of this disease suggests the need for a better documentation of cases to supplement and aid our understanding it. We have had the opportunity to study two cases of cardiomyopathy recently. One of these cases will be described in detail in this paper. The second case was basically similar to the first one.

A 30-year-old white plumber was first seen as a consultation patient on his second hospital day (October 26, 1971). His illness apparently started in August when he developed what was thought to be an allergy manifested by rhinitis, cough, and redness of the eyes. Late in August he experienced acute upper respiratory distress with associated chills and fever up to 102 degrees. The cough persisted, increased in severity and produced a mucopurulent sputum. In September he again had several days of elevated temperature (about 101 degrees) accompanied by general malaise. In early October he developed a sore throat followed by the cough and increased sputum production. During the height of the respiratory infection, he became increasingly short of breath. The dyspnea became quite severe and finally led to paroxysmal nocturnal dyspnea and orthopnea. At the same time, he developed heart palpitation, became increasingly weak and was nearly unable to move about. No chest pain was present at any time. He developed swelling of the legs and his appetite diminished. Urinary output apparently was sufficient. He did not use tobacco and there was no history of alcohol consumption, especially no consumption of beer. There was no history of abdominal cramping.

The patient had had the common childhood diseases. There was no history of rheumatic fever, streptococcus infection or hepatitis. While serving in the Navy, he had surgery for a patent urachus and an incidental appendectomy. In 1968 he had surgery for a pilonidal cyst. In 1970 he had a persistent diarrhea which lasted intermittently until April 1971 when it cleared spontaneously.

The patient's father died with chronic obstructive pulmonary disease. The mother has hypertension and a brother experienced a heart attack at age 40.

Dr. Frenkel is in the private practice of internal medicine in Clarinda. This paper was presented to a joint meeting of the Iowa Clinical Society of Internal Medicine and the American College of Physicians May 13, 1972.

THE SCANLON MEDICAL FOUNDATION/IOWA MEDICAL SOCIETY HAS DESIGNATED THIS ARTICLE AS THE HENRY ALBERT SCIENTIFIC PRESENTATION FOR THE MONTH OF OCTOBER, 1972.



Figure 1

PHYSICAL EXAMINATION

Examination revealed a well nourished white male in severe respiratory distress. Wheezes could be heard. The slightest exertion caused severe distress. Lips were cyanotic, as were the peripheral parts of the extremities. Eyes and ears were normal. The throat was slightly injected and nasal mucosa was edematous. There was no lymphadenopathy, no carotid bruits and no thyroid enlargement. The venous system of the neck was engorged with the patient reclining at 45 degrees. The lungs were expanding poorly, mostly on the left. There was dullness over the left lower field posteriorly. Coarse and fine rales and wheezes were audible all over the chest.

The heart was greatly enlarged to the left and right. An apex beat was noted between the anterior and medial axillary line. The rate was about 140, regular. A grade 2/6 high pitched systolic murmur was heard along the right sternal border, at the second, third and fourth intercostal space. A forceful impulse was noted over the left heart. Blood pressure on the left was 140/112 and on the right 108/90. All peripheral pulses were present.

The abdomen was slightly distended. There were no masses or tenderness. The liver and spleen were not enlarged.

No rectal examination was done.

Extremities showed cyanosis of the toes and fingers. One to two plus pitted edema of the ankles. There was no clubbing of the fingers. The nervous system was negative aside from severe apprehension.

LABORATORY DATA

Laboratory data: Hgb 13.3, Ht 41%, WBC 8,000, RBC 5.31 million, 61% segs, 33% L, urinalysis was negative, BUN 14.6 mgm%, creatinine 1.2 mgm%, creatinine clearance 70 ml per minute, K 4.5 m Equ/L, chlorides 107.5 m Equ/L, Na 138 m Equ/L, fasting blood sugar 86 mgm%, glucose 2 hours p.c. 161 mgm%, SGOT 25 units, LDH 193 units, CPK 30, PH 7.47, CO_2 32, Sed rate 13 mm per hour, T_4 31.5%, protein 7.3, albumin 4.0, alkaline phosphatase 12, bilirubin 0.7, cholesterol 285 mgm%, triglycerides 92 mgm%. No serum turbidity. Lipoprotein electrophoresis was normal. The serum electrophoretic pattern was normal. The immune electrophoresis showed a moderate elevation of IGM, normal IGG and IGA. Two examinations of LE were negative. ASO titer was 50 Todd units. Serology was negative. A paired viral study showed an increasing titer for Coxsackie B_2 and B_4. Viral studies of the stool were negative, probably due to the length of time involved. Urine culture showed Aerobacter-Klebsiella species. Pulmonary function tests showed a vital capacity of 2600 cc with a predicted value of 4100 cc. Timed vital capacity at 1, 2, and 3 seconds 89, 95, 100% of total. During the hospitalization and after discharge the BUN increased to 32.2 mgm%, then gradually came down to 21.2 mgm%. Recent studies of BUN and creatinine did not show any changes.

An intravenous urogram was normal. X-ray findings of the chest (on 10-28-71) showed generalized cardiomegaly involving all chambers of the heart. The pulmonary vasculature was engorged and there was a left basilar-pleural effusion. (Figure 1)

Electrocardiogram showed an intraventricular conduction defect with left and right ventricular hypertrophy. (Figure 2)

Treatment consisted of digitalization with

Digoxin and administration of Furosemide. His urinary output the first 24 hours was 5,000 cc. Because of his desperate condition, he was given Prednisone (80 mgm a day, divided in four equal doses) for a period of five days. He was tapered off and at the time of hospital discharge he was off steroid medication. After 24 hours his condition showed marked improvement. He was continued on digitalization and diuretics in the form of Furosemide. He was placed on a salt free bland diet with the addition of 800 mgm NaCl, which later was increased to 1500 mgm.

At the present time, the patient is incapacitated. His heart has not reduced in size more than when he left the hospital. (Figure 3) The slightest exertion causes dyspnea. He is mostly at bedrest. It is my feeling his life duration is limited and his myocardium will not come back to even near normal condition. A recent cardiac catheterization failed to contribute anything to his improvement or prognosis. The left ventricular angiogram revealed very poor contractibility of the left ventricular myocardium. The diagnosis was established as primary cardiomyopathy due to Coxsackie B_2 and B_4.

The second case was a 75-year-old male who had an old anterior myocardial infarction. Following a bout of febrile disease 6 weeks before remission, he developed decompensation and his heart size became greatly enlarged. A paired viral study showed an increasing titer for Coxsackie B_4.

A review of the literature indicates that any viral disease can produce acute myocarditis. No systemic hemodynamic observation in proven acute viral myocarditis in men is recorded in the literature to my knowledge. Coxsackie viruses have been isolated from heart tissue. The viruses are usually blood borne. In animal experiments Tilles[2] showed that exercise enhances the entry of Coxsackie viruses into the myocardial fibers. Lerner[3] and associates recently confirmed these observations. In this case it may well be the patient worked and exercised to an extent which supported the entry of the virus into the heart fibers. It may well be that such extreme efforts enhance the progress of the disease.

Kilbourne[4] showed in mice evidence of syn-

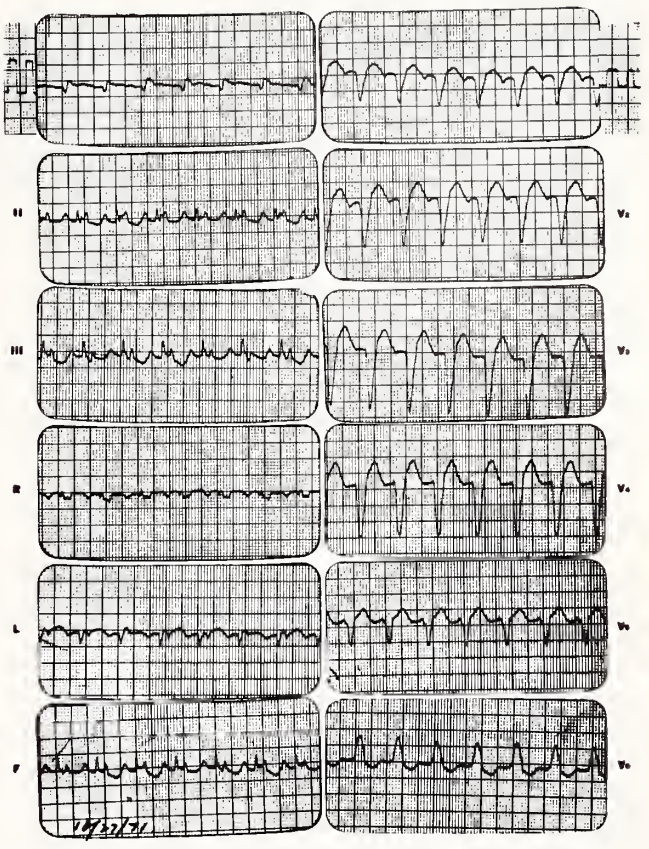


Figure 2

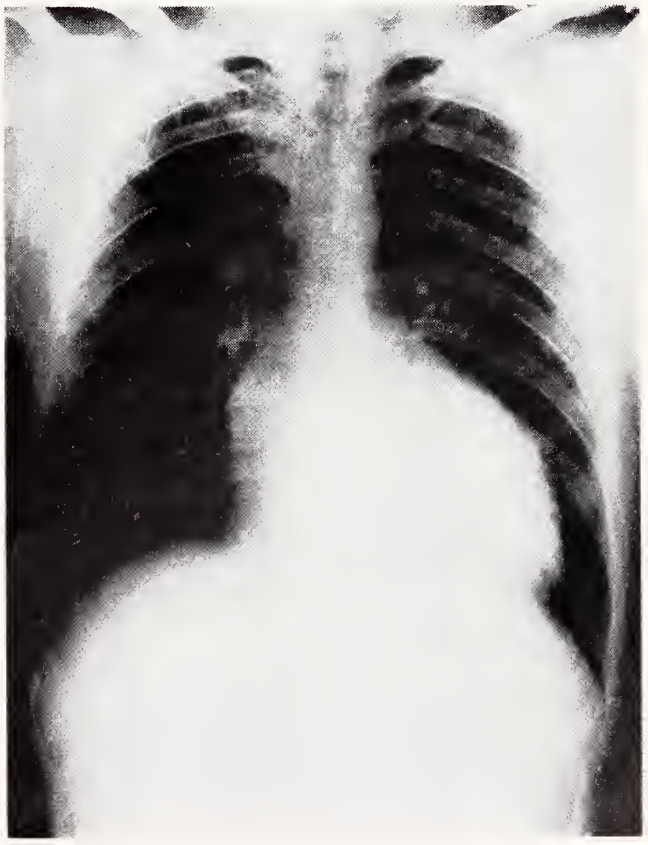


Figure 3

ergistic effect of cortisone and a cardiotopic virus, namely Coxsackie B_3. Administration of cortisone caused dissemination of myocardial necrosis. On account of these experiments, the therapeutic approach with steroids has been said to be contraindicated. No controlled trials in man are available at this time. Based on the results obtained in this particular case, I cannot agree with such a generalized statement. Our patient made a striking improvement with administration of Prednisone. One cannot always translate animal experiments into human therapy.

DIFFERENT STRAINS

On the other hand the question arises as to whether different strains of Coxsackie viruses might have different effects on the myocardium. Most studies relate to Coxsackie B_3 and B_5 while our case was produced by Coxsackie B_2 and B_4. Dent and Larke[5] stated that immune suppressive drugs may have little or no effect on an established humeral immune response which is a major factor in protection against viral infection.

While the increased hazard of infection, particularly secondary to corticosteroid use is appreciated, inordinate susceptibility to viral disease rarely has been reported. Burch[6] describes a 45-year-old man with pericarditis caused by Coxsackie B_4 who died after one year without receiving specific therapy. In another paper[7] he describes the role of virus, especially that of the Coxsackie B group in producing heart muscle disease; the mechanism of this is poorly understood. He feels there is need for a thorough study of cardiotropic diseases. W. G. Smith[8] reported 42 cases of Coxsackie heart disease observed in Western Australia from 1962 to 1969. He declares that Coxsackie heart disease should be considered in unexplained valve lesions, cardiomyopathy of obscure origin, conduction disorders, unexplained electrocardiographic changes and some cases of congenital heart disease. Viral studies should probably be part of a workup in unexplainable cardiac disturbances. An accurate history showing the course of events is most important. I am sure some electrical dysfunctions of the heart may be due to viral disease.

SUMMARY

Two cases of cardiomyopathy are reported caused by Coxsackie B_2 and B_4 virus. The purpose of this paper is to call attention to this disease complex, the pathophysiology of which is poorly understood.

These are some of the symptoms which can be present:

1. **No clinical symptoms**
2. **Unexplained sinus tachycardia**
3. **Atrial or ventricular premature beats**
4. **Atrial or ventricular tachycardia**
5. **Ventricular fibrillation/cardiac arrest**
6. **Partial or complete heart block**
7. **Gallop rhythms**
8. **Pericardial rub**
9. **Heart failure**
10. **Circulatory collapse**
11. **Abnormal electrocardiogram or x-ray**
12. **Incidental autopsy findings**

The following therapy might be indicated:

1. **Specific therapy**
2. **Restriction of activity**
3. **Oxygen**
4. **Monitoring**
5. **Antiarrhythmia**
6. **Artificial pacing**
7. **Digitalis**
8. **Diuretics**
9. **Steroids**

It is hoped that in cases with unexplained cardiac pathology, a study for probable viral etiology is being encouraged.

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Coccidioidomycosis in Iowa: 12 Cases in a Non-Endemic Area

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Iowa City

Coccidioidomycosis was recently brought to our attention here at University Hospitals by an interesting patient. A 33-year-old woman, who had a documented coccidioidal infection of the right olecranon several years prior to her admission here, was referred to the surgical service for its evaluation of a subcutaneous mass on the right side of her neck. The patient was otherwise asymptomatic and her elbow was well healed from the previous infection (it had been treated by open drainage and a minimal course of Amphotericin B). The working diagnosis was, of course, recurrent coccidioidomycosis. Complement fixation titer of the serum was positive at greater than a 1:32 dilution, but an intermediate strength tuberculin skin test was also positive. The skin test was repeated and was again positive. At the time of biopsy of the neck mass, many matted lymph nodes were found and one of these was removed for pathological study and culture. Microscopic examination revealed only a nonspecific granulomatous reaction. The culture was more revealing: *Mycobacterium tuberculosis* was the only organism that grew, and that only after a one month wait. So this patient with tuberculosis prompted a great deal of interest in a more uncommon disease here in Iowa: coccidioidomycosis.

Coccidioidomycosis is a systematic fungal disease uncommonly encountered in the Midwest. The following is a review of the few cases seen at the University of Iowa Hospitals since 1950.

The authors are associated with the Department of Internal Medicine at The University of Iowa College of Medicine. The work described in this article was in part supported by a grant from the Iowa Thoracic Society.

Coccidioidomycosis is caused by the fungus *Coccidioides immitis* which is endemic to the Lower Sonoran Life Zone (low altitude desert with exposed soil) of the southwest U. S. and northern Mexico, and similar areas in Argentina, Paraguay, Venezuela and Honduras. The disease is usually a pulmonary disease similar to tuberculosis and histoplasmosis; but can produce signs and symptoms of almost every organ system (the GI tract seems to be an exception). Four forms of the disease are normally recognized:

1) *Primary pulmonary* ("valley fever") of which 50-75% are asymptomatic.

2) *Disseminated* with an over-all mortality (with treatment) of about 50%.

3) *Benign residual* ("coccidioidoma") of which 30-50% are asymptomatic.

4) *Primary cutaneous*, a rare form which results from direct innoculation through the skin.

METHOD AND MATERIALS

The Hospital patient records, as well as the microbiology and pathology records, were reviewed.

RESULTS

Of the 12 cases (10 proven, 2 unproven) seen here since 1950, 9 were the benign residual form, 2 had "valley fever," and 2 had the disseminated disease. Four of those with the benign residual form were completely asymptomatic, the diagnosis was made postoperatively in 6 and postmortem in 1, and 2 were unproven (see table).

Only 2 of the patients have had serious disease; both had the disseminated form, both were treated with amphotericin B, had recurrences, and one died 8 years after onset while the other is still alive and being followed also 8 years after the onset of his illness.

Nine of the patients are known to have been in an endemic area some time previous to

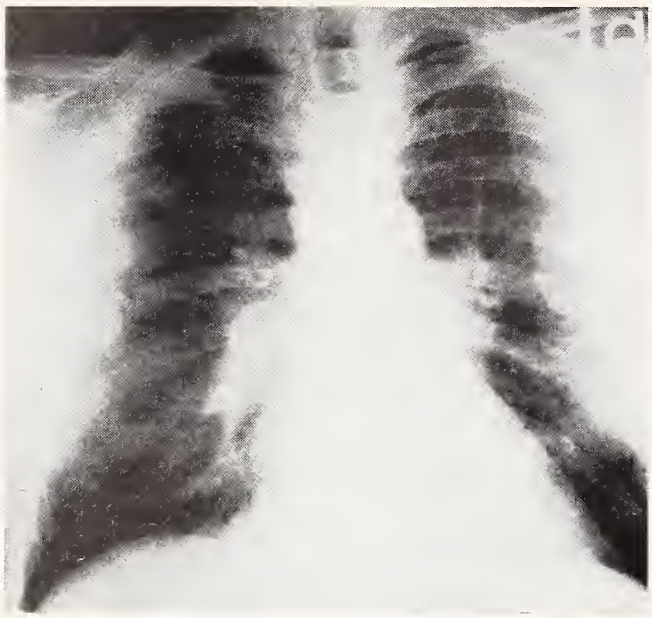


Figure 1. Chest X-ray of asymptomatic patient showing typical coin lesion representing a "coccidioidoma" in right middle lobe.

their illness; the past history of the other 3 is unknown.

Two of the patients had other concurrent chronic infections. Patient T.F. developed active histoplasmosis 3 years after the onset of his coccidioidomycosis. His younger brother also has histoplasmosis but no coccidioidal infection. At the time of thoracotomy, C.W. was found to have granulomatous lesions of tuberculosis and blastomycosis as well as a coccidioidoma.

CASE REPORT

A 75-year-old retired groceryman was admitted to University Hospitals on June 19, 1961 with a chief complaint of chest pain and hemoptysis of two weeks duration. Three months prior to admission the patient had had a severe chest cold and one month prior to admission had had a chest X-ray which showed a coin lesion high in the right hemithorax. There was no history of chills, fever, or active tuberculosis. The patient had lost 10 pounds over the last two years. He had not smoked for 12 years and only half a pack per day prior to that.

Physical exam was noncontributory except for the finding of decreased breath sounds and vocal fremitus throughout the chest.

Repeated chest films revealed two densities in the right lung. Bronchoscopy was negative; bronchogram showed right middle lobe bronchiectasis. Pulmonary function studies were above average. Sigmoidoscopy and barium enema were normal, as was an upper GI series (done just prior to admission). Blood cultures were negative. Tuberculin, histoplasmin, blastomycin and coccidioidin skin tests were read as non-reactive, although erythema and very slight induration were noted at the coccidioidin site.

A right thoracotomy was done. A granuloma was removed from the upper lobe and a second one was excised from superior segment of the lower lobe. The patient recovered without complications and was discharged.

Microscopic exam of the granuloma of right upper lobe revealed many acid fast rods in the necrotic tissue. The granuloma of the right lower lobe was found to contain organisms typical of *Coccidioides immitis* and *Blastomyces dermatitidis* (seen budding). No cultures were done, nor were complement fixation titers of the patient's serum accomplished. (Tuberculosis has previously been reported concurrently with coccidioidomycosis; obviously there is little cross immunity between these diseases.)

R.F., who presented as "valley fever" and "progressed" to meningitis, was found to have two different, acute, processes occurring concurrently. He did have coccidioidomycosis but the cause of his meningitis was *Actinomycetes bovis*. (The patient was in transit when he was seen here and the final diagnosis was made at NIH, Bethesda, Maryland.)

DISCUSSION

Coccidioidomycosis is important to Iowa physicians as a part of their differential when they encounter any granulomatous disease. More people are exposed to the illness by increased travel into endemic areas, and such a history is almost always encountered in patients with the disease. Accidental exposure in a microbiological laboratory is fortunately rare and usually obvious. Man to man or animal to man transmission does not occur since the fungus must go through a saprophytic mycelial stage before it is infective and that stage is only rarely accomplished outside the endemic area or a laboratory medium.

The 7:2 male to female ratio is not unusual (a recent review in Michigan revealed a sex ratio of 23:3 favoring males[3]). Skin testing in the Southwest shows that both sexes are

I.D.	Sex	Year	Age	Hx. of Exposure	Presented	Type	CF Titers	Skin Test	Cultures	Dx. by	Treatment	Recurrence	Mortality
M.G.	M	1955	27	?	Coin lesion, routine chest film	3	?	?	−Lung	Pathology of lesion	Thoracotomy	No	No
M.C.	M	1957 (here 1959)	19	Univ. of Arizona 1956-57	Meningitis	2	3+(1:64)	?	+ Sputum + CSF (Others at post)	Culture	Amphotericin B 1958, '60, '64, intrathecal '64, ventriculocaval shunt '64	1960, '64, hydro-cephalus	1965
M.J.	F	1960	68	?	Coin lesion, routine chest film	3	?	?	−Sputum	Pathology of lesion	Thoracotomy	No	No
R.F.	M	1961	26	Calif.	Febrile headache, then meningitis*	1	NR here, +(1:32) at NIH	− (Erythema only)	+ Sputum at NIH	Culture	None	No	No
C.W.	M	1961	76	?	Chest pain hemoptysis	3	?	− (Erythema only)	−Lung	Pathology of lesion	Thoracotomy	No	No
T.F.	M	1962	9	Tucson, Arizona native	Fever, chest pain, sputum production	1,2	4+(1:1024) 1962 2+(1:1024) 1964, '68	+	+ Lymph node	Lymph node biopsy	Amphotericin B 1962, '63, '68	1963, '68	No
P.F.	M	1964	50	Calif. several years	Coin lesion, routine chest film	3	?	+ (1968)	+ Lung lesion	Culture	Thoracotomy	No	No
M.M.	F	1965	42	Tucson, Arizona, several years	Coin lesion, routine chest film	3	NR	?	+ Sputum + Lung lesion	Culture	Thoracotomy	No	No
A.W.	M	1967	55	Birth to 3 yrs. in Texas	Chest pain 1 week	3	1+(1:8)	?	+ Lung	Pathology and culture of lung	Thoracotomy	No	No
O.S.	M	1961	55	Arizona, 6 mos. prior to death	Diabetic, CHF, K-W kidney	3	?	?	+ Lung	Culture	None	Incidental finding at post	
Unproven Cases:													
S.H.	M	1953	19	Phoenix, Ariz., fall of 1951	Coin lesion, routine chest film	3	?	+	?		None	?	?
R.W.	M	1965	28	Calif.	Hemoptysis	3	+(1:64)	+	−		None	?	?

Types: 1) Primary pulmonary, "valley fever." 2) Disseminated. 3) Benign residual.
* Meningitis found to be caused by Actinomycetes, treated with penicillin successfully.

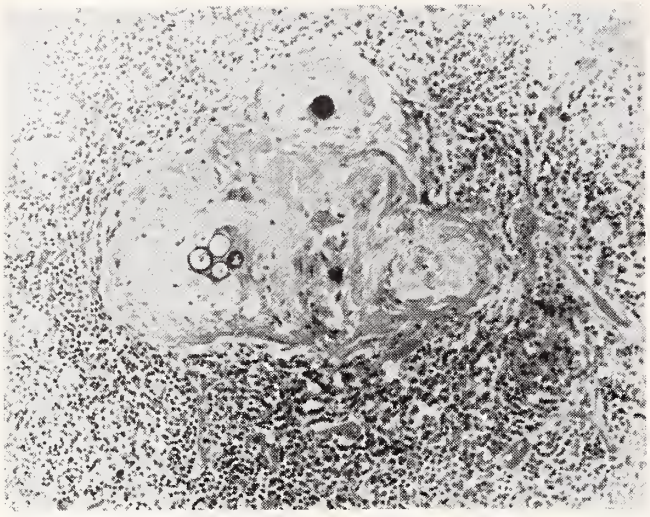


Figure 2. Low power microscopic view of Coccidioides immitis spherules within giant cells. One of the spherules has retained its microspores (PAS stain).

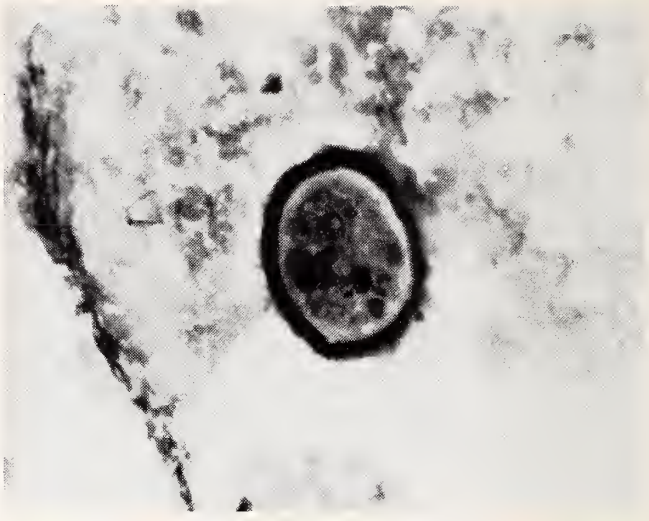


Figure 3. High power microscopic view of a single spherule showing the microspores within it (Grocott stain).

equally reactive, however, women more often develop symptomatic "valley fever" with erythema nodosum (5:1) while men are more prone to disseminate of the disease (by the same ratio).[1] Since the primary diseases are rarely seen outside the endemic area it is no wonder that males predominate in our series.

It has been noted that darker skinned nationalities develop more severe forms of the disease (the mortality is 20 times greater in blacks than in whites and almost 200 times greater in Filipinos than in whites) and about 1% of Iowa's population is black.

The coccidioidin skin test is the most popular diagnostic tool when considering this disease and, when properly used, does yield useful information. It is a reliable indicator of *exposure* to the fungus; it does not prove the *disease* state. In certain areas of the Southwest 90% of the population are positive skin reactors and 50% of the people who move into highly infected endemic regions convert to positive skin reactors within 6 months. There is rare cross reactivity between coccidioidin and histoplasmin, blastomycin, and "paracoccidioidin." C.W., in our series, was reported to have a negative skin test (erythema only, no induration). It has been recently noted that the skin test is often negative in the disseminated disease. However, the skin test does not significantly alter the complement fixation test—as is the case with some other fungal skin tests—and a positive test with a low CF titer in a case proven by biopsy or culture is a good prognostic sign.[2]

A positive skin test *demands* serological testing to substantiate the diagnosis. Precipitin and complement fixation (CF) serum tests are both available and 90% accurate. Precipitins appear in the blood shortly after the skin test becomes positive but persist for only a few days or weeks. CF antibodies appear later and then only in more severe infections and persist about as long as the disease lasts; and, in a few cases, for years after the disease is inactive. Therefore the CF test is the most useful test; indeed, when it is readily available the skin test should be dispensed with altogether. If this test can not be done in local laboratories, serum can be sent to the State Hygienic Laboratory where it is done routinely. Serial titers are very useful in following the course of the disease. The CF titer of patient A.W. was done on only one occasion and was 1:8 (normally considered a negative titer), which could indicate that his *active* disease had occurred far in the past and was presently inactive or walled off, or that it was very new. The same may have been true for M.M., who had completely negative titers on two occasions, but both were drawn after the lesion had been removed.

Culture of the lesion is naturally the best way to establish the diagnosis but is often impossible to obtain.

Treatment of "valley fever" is usually un-

necessary and only symptomatic in the more severe cases. Treatment of disseminated and primary cutaneous coccidioidomycosis is by amputation, when possible, and amphotericin B. Coccidioidomas can be removed surgically when they are symptomatic.

CONCLUSIONS

Coccidioidomycosis is presently a rare disease in Iowa but the incidence will undoubtedly increase as more Iowans travel to endemic areas. Three syndromes have been seen in the state: primary pulmonary, disseminated and benign residual forms. We recommend CF serum titers as the most useful diagnostic tool when considering this disease as part of a differential diagnosis.

ACKNOWLEDGMENT

The authors wish to thank Dr. Thomas Kent for his help in selecting the microscopic examples of *Coccidioides*.

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Viruses as Possible Factors In Human Cancer

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IT IS NOW firmly established that certain viruses may cause neoplasia in birds, amphibia and many species of mammals in both experimental and natural conditions. These oncogenic viruses include both RNA and DNA types from several different groups. For most of the common histological types of human cancer, there is a similar neoplasm in these other species which is of proven viral etiology; this applies to carcinomas, sarcomas and leukemias.

Although there are numerous different histological types of tumor, it does not follow that there is an equal number of different viruses. Some are known to cause several varieties of neoplasm; for example, the polyoma virus of mice can induce the development of 18 different types of tumor. Probably this depends on the type and state of differentiation of the cell initially infected, and also on the stage of development of the host organism at the time of infection.

In considering the concept of a viral etiology for tumors, an initial objection would appear to be that virus-initiated diseases usually show clear evidence of spread by infection. They often appear in epidemic form, but this is not the recognized pattern for cancer. However, this may occur exceptionally with virus-induced neoplasms. For instance, Marek's disease in chickens is a form of lymphoma caused by one of the herpesviruses which may spread rapidly through a flock of poultry when they are kept in factory-farming conditions. It can result in a heavy loss of birds. Also, a herpes-like virus is responsible for carcinoma of the kidney in frogs, and it may spread just as any other infectious disease. From time to time, there have been reports of "clustering" of cases of Hodgkin's disease and of leukemia in man, but with such small numbers there is considerable difficulty in drawing valid conclusions from statistical analysis, and the question of whether such clusters represent mini-epidemics is still a matter of dispute.

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A certain virus can be responsible for tumors, in occasional isolated form rather than in a wave of neoplastic disease, because of two major factors. One is the mode of transmission of the virus; the other is the period of latency.

With the common infectious diseases, the etiologic agent spreads in "horizontal" fashion from person to person, as in an influenza epidemic. Although this mode of transmission also occurs with some oncogenic viruses, in other cases the virus is transmitted "vertically" from one generation to the next in an occult state. This vertical type of spread is seen, for instance, with a form of leukemia which occurs in mice, resulting in the superficial appearance of a hereditary tendency to this disease. In experimental work, successful induction of neoplasms depends on entry of the tumor virus into animals which are immunologically incompetent, as with the newborn or those which have been thymectomized. It may be that in human disease, we should be searching for an intrauterine infection, or examining more closely those few examples of cancer which appear to be determined by hereditary factors.

However, even if infection does take place early in life, the age distribution for clinically apparent neoplasia does not usually agree with that expected of disease initiated by prenatal infection. There is, of course, a small but distinct mode in the incidence of cancer in the first few years of life; after this the rate falls to a minimal level during childhood and adolescence, with a subsequent steady increase in frequency with advancing age. The neoplasms seen early in life may conceivably result from the action of viral genes acquired prenatally; similar forms of leukemia and nephroblastoma are known to be induced by viruses in birds and animals.

But what of the majority of cases of cancer which are seen in middle age and later? It has been shown experimentally that oncogenic viruses frequently remain dormant in cells from the time of birth until often a major part of a lifetime has passed, and may then initiate the growth of a tumor. At present, much has yet to be learned, in terms of molecular biology, of the state of the viral genes and their relationship to the host-cell genome. The viral genes are considered to be "integrated" with those of the cell genome in a state which resembles that of lysogenic phage in bacteria. It is presumed that in this condition the genetic material of the virus is in the form of double-stranded DNA. The DNA tumor virus genomes normally exist in this state, but until recently those with a single-stranded RNA genome posed a difficult problem. However, it is now known that the RNA tumor viruses (so-called "C" particles) carry within the virion coat the "reverse replicase" enzyme, and that through the action of this enzyme homologous double-stranded DNA can be formed from the single-stranded RNA template.

The existence of oncogenic viral genes within a cell does not necessarily mean the cell shows the features of malignancy, nor that infectious virus is produced. Several recent reports describe the study of cells derived from various animal species which were normal and healthy in both appearance and behavior, and which had been shown after repeated testing by various technics to produce no infectious virus nor to show any signs of the presence of viral genes. Yet, by experimental manipulation of these same cells, "masked" (dormant) genes were activated so that oncogenic virus was produced. This state of dormancy may be terminated by the action of radiation, or of carcinogenic chemicals including those present in cigarette smoke.

In other cases, the cells may undergo malignant change and yet may not produce mature infectious virus. It is now clear that an oncogenic virus need not undergo a complete cycle of replication in order to induce tumor formation, but such virus may be induced experimentally to complete the cycle and release infectious virions. There are, therefore, three different states to consider. One is that of "healthy" cells producing no virus, but containing dormant viral genes. The second is that of cells which are malignant by virtue of the action of viral genes within the cells, yet producing no infectious virus. The third is that of malignant cells producing mature complete virions.

In view of the complex relationships between virus and cell, how may the problem of human cancer be approached?

In the first place, virus has been found in a recognizable form in some human tumors.

From observation of the peculiar geographical distribution of Burkitt's lymphoma in Africa, it was suggested that the causal agent

might be an insect-borne microorganism, and eventually a herpes-like virus, the EB virus, was found to be consistently associated with this tumor. Serological studies followed, and according to the distribution of serum antibodies specific to the EB virus, it was evident that a high proportion of the population in many parts of the world had been infected with the virus. Further investigations have now made it almost certain that the EB virus is the causal agent of infectious mononucleosis. How might a possible etiologic connection with Burkitt's lymphoma be explained? In normal persons, the immunological response to infection by EB virus results in resolution of the illness. It has been suggested, however, that in those persons with a defective immunological response, the virus is not eliminated but remains to induce the development of lymphoma. Such an immunological defect possibly results from a chronic infection of the reticuloendothelial system such as that of malaria; if this proves to be true, it would explain the similarity in distribution of malaria and Burkitt's lymphoma in Africa only. The possibility of other causes of similar chronic damage to the immune defense system, leading to this response, may account for the occasional occurrence of cases similar to those of Burkitt's lymphoma elsewhere in the world.

A herpes-like virus, which closely resembles the EB virus, has also been found in association with nasopharyngeal carcinoma. [2, 3]

The herpes simplex virus exists as two different serotypes. Type 1 is responsible mainly for lesions in the upper part of the body, and type 2 for genital infections. It has been reported that there is a statistically significant correlation between the presence of type 2 specific antibody and cervical carcinoma.[4, 5] (Rawls *et al*, 1968) (Nahmias *et al*, 1969.)

The isolation of viral particles from the milk of a high percentage of American women with a family history of breast cancer, in contrast to the occasional isolation from the milk of women lacking such a family history, has been reported.[6] A study on milks of the closely-segregated Parsi women of Bombay yielded similar results; 39% of the milks contained these particles. The rate of breast cancer in Parsi women is three times as high as in the neighboring women of other ethnic groups. These so-called "B" particles resemble those of the mouse mammary cancer virus morphologically, biochemically and antigenically. The murine virus is known to be transmitted to both male and female offspring in the milk during suckling. The female progeny develop breast cancer if allowed to bear a litter, and it has been shown that the physiological changes in estrogen level which take place during pregnancy are sufficient to activate the dormant virus. The activity of the murine virus is suppressed by the male sex hormones, and it remains dormant throughout the life of the males unless activated experimentally by injection of estrogens. Response of the host to this virus may be modified by strain-specific hereditary factors of susceptibility/resistance. Although a similar human virus has been found, it remains to be seen whether it will be identified as an etiologic agent of human breast cancer.

Several reports have appeared recently of the isolation of "C" particles, resembling the RNA tumor viruses of birds and animals, from human rhabdomyosarcomas and lymphosarcoma. The significance of these findings is a matter of dispute at present.

Isolation of a virus from a tumor does not, of course, prove it to be the cause of the neoplasm. Its presence within the cancer cells may be coincidental—that of a "passenger" well suited to the intracellular environment and causing no significant change in the host cell. On the other hand, its presence may be etiologically important. The real test of oncogenic potential, that of experimental induction of tumors, is obviously out of the question in man, but indirect evidence may be provided in other ways.

It has been shown from work carried out on animal cell cultures, that infection with an oncogenic virus results in changes in the morphology, antigenic constitution and behavior of the cells in vitro; these changes (usually referred to as "transformation") closely resemble those seen in malignant cells in vivo. Similar studies can be carried out on human cell cultures.

Recently, two prospective surveys have been set up to investigate further whether infection by EB virus is a causal factor in the development of either Burkitt's lymphoma or nasopharyngeal carcinoma. This involves the collection of two or three serum samples each year from a selected susceptible population in order

to test for the presence of specific anti-EB virus antibody. The aim is to follow the appearance and changes in titer in the small percentage of population who eventually develop one of these neoplasms. One study is based on a large population of African children, and the other on a population of men in the 40-49 age group in Hong Kong.

This still leaves the problem of identifying the factors in everyday life which may be responsible for activation of a dormant human tumor virus.

SUMMARY

To sum up, it appears that in trying to establish a viral etiology for some form of human cancer, the question of an infection acquired before birth must be given serious consideration in addition to that of infection acquired postnatally. Following its establishment within cells, the tumor virus may remain dormant for many years. Although the presence of the viral genes may be essential for oncogenesis, yet the factor(s) which actually determine the onset of tumor development through activation of the dormant virus may be intrinsic in nature, such as genetic influences or hormonal changes, or environmental, such as exposure to carcinogenic chemicals.

ACKNOWLEDGEMENT

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Editorials

M. E. ALBERTS, M.D., Scientific Editor

DEAD OR ALIVE

"If the machine indicated it, I was still alive, with the implication that, if the machine didn't indicate it, then I was in trouble or dead." Such was the comment made by a patient on a cardiac monitor, as reported by Doctors Blacher and Joseph* at The Mount Sinai Medical Center, New York City. Reporting on a study of 25 patients in the coronary intensive care unit, and 10 in the cardiac surgery intensive care unit, the psychiatrist and cardiologist emphasize that the physician who looks upon the monitor as the height of applied science, must also recognize the patient's viewpoint may be much different. In the sense of constant observation the monitor may reproduce emotionally for the patient a sort of mother-child relationship with the mother able to respond quickly to the needs of the infant. Now, to some not so psychiatrically oriented this may seem far out. Interesting reactions did occur.

The coronary care group of patients extolled the virtues of the monitor, and most of them watched the oscilloscope screen (electrocardiogram) and the blinking light (heart rate) at length. The reaction of looking to the monitor to see if one were still alive expresses the anxiety of the patient regarding imminent demise as well as a magical belief the machine was able to portray better what was occurring.

The surgical patients, being subjected to many more personal procedures such as suctioning, breathing exercises, etc., gave less importance to the monitor because the personal medical and nursing care was the central issue. Actually, the patient had less time to look intently at the monitor.

Often as I have been near a coronary care center where the "beeper" is constantly "on" it has occurred to me that such a constant sound might become nerve wracking. The Mount Sinai study did reveal some patients could not sleep when the beeper was on because of an intense fear it might stop during a period of sleep. It would seem, further, the knowledgeable patient would be aware of arrhythmias so as to actually increase his anxieties by hearing the ominous sound, in addition to viewing the blinking light and irregular oscilloscope tracing.

Another aspect of the monitor involves the patient's feelings at the time of and following his transfer from the intensive care unit to another room in the hospital. The close, confining, monitored security of the intensive care unit gives way to the loneliness of a luxurious private room with its non-protection.

This study emphasizes a definite need in the relationship of the physician and the cardiac patient. From experience, I can report the cardiac monitor is a marvelous machine even with overtones of captivation—it can captivate the mind of the patient to ideas of fear as well as feelings of protection. It behooves the physician to relate to the patient to some degree the purpose of the machine, observe the reactions of the patient and perhaps adjust the oscilloscope and light from the view of some patients. It seems important too, to counsel with the patient about his possible feelings when he transfers from the intensive care unit. Pills, intravenous fluids, and monitors are not enough. Reassurance with common sense explanation must be added to the treatment routine.—M.E.A.

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* Blacher, Richard S., and Joseph, Edward A.: Psychological reactions to cardiac monitor. Mount Sinai J. Med., **39**:390-396, 1972.

METRIC SYSTEM

All AMA publications will express measurements in metric units after January 1, 1973. Surely, other medical publications will do likewise. Many hospitals, including The University of Iowa Hospitals, are currently using the metric system. Are you easily conversant with conversion from our present hodge-podge of units of measure? Expression of temperature will change from Fahrenheit to Centigrade; body measurement from pounds to kilograms and linear measurement from feet and inches to centimeters. We must become used to thinking freely of normal body temperature as 37°; the average newborn infant weighing 2,520 grams, and the beauty "with eyes of blue" is 157.48 centimeters tall.

The April 1971 issue of this JOURNAL announced the conversion to the metric system by The University of Iowa hospitals and clinics. It would behoove all of us to review again the various conversion factors so as to be more at ease with the metric system. Much of the system we use routinely, so it is not entirely foreign. Much of our difficulty will be in conversation with our patients, for many, nay most of them will not comprehend when we suggest that the baby has grown 2 cm or that mother is 3 kg overweight. Eventually all will understand, consistency will result and confusion will no longer exist. Have fun educating your patients, especially if you convert in your office records.—M.E.A.

ALL IN A DAY'S WORK

Doctor, what do you do all day? What is the primary reason for which patients seek your professional services? The National Disease and Therapeutic Index Review* for June 1972 indicates that in 1971 private practitioners set a record of 1.5 billion patient contacts, a 2% increase from 1970. Contacts in hospital settings increased by 5%, while office visits declined by a comparable percentage. Contacts with children under 10 years of age declined while all other age groups registered increases. The change in birth rates is further reflected in the 12% decrease in prenatal care visits and the 13% decrease in well baby and child contacts. The average practitioner saw increasing numbers of infective and parasitic disorders (+13%), disorders of bones and organs of movement (+8%), mental disorders (+5%) and neoplasms (+5%).

The general practitioners reported an average of 21.8 patients per day in 1970, while the overall patient contacts for all doctors was 17.6 per day. Pediatricians have the largest daily patient load of 24.3 patients per day, and half of these are under 2 years of age. Now, I know why I am so tired most evenings.

Some further statistics are interesting because they refute in some ways the claims that children are not receiving proper supervisory medical care and screening. Pediatricians account for 6% of the physicians in private practice in the United States, and the number of pediatricians increased by 10% from 1968 to 1970. The percentage increase of their heavy patient load for well baby and child care increased by 16%, and for prophylactic innoculations by 12%. The largest disease categories treated by pediatricians were respiratory illnesses, ear conditions, ill-defined conditions without a specific diagnosis (such as fever), allergic disorders and accidents and poisonings. This makes a very fast-moving, heavy turn-over patient load. More pediatricians are needed.

Herein lies an argument for pediatric assistants—a trained non-physician person to care for these routine matters, leaving the pediatrician free for the severe illnesses and the diagnostic and therapeutic dilemmas. The statistics, however, do not substantiate that the average practicing pediatrician sees that many seriously-involved patients. People desire generally good supervisory care of their growing child, seek medical attention for even seemingly minor illnesses (visits to pediatricians for common colds increased by 60% from 1968 to 1970), and in the long run we should have a healthier, happier new generation. The pediatrician and the pediatrics-oriented family practitioner can and will provide this good service to our children. Ancillary help will be needed, but still the physician in his private office is the keystone to this endeavor.—M.E.A.

* National Disease and Therapeutic Index Review, Vol. 3, No. 1, June, 1972.

IOWA Specialty Groups

IOWA UROLOGICAL SOCIETY . . . Special recognition was accorded Rubin H. Flocks, M.D., Iowa City, at a Urology Postgraduate Conference held September 15 and 16 at The University of Iowa. A member of the U. of I. faculty 41 years and an internationally recognized authority in urology, Dr. Flocks was honored at a special symposium and banquet attended by a number of experts in this medical specialty.

IOWA ORTHOPEDIC SOCIETY . . . Fall meeting of the Society will be October 26, 27 and 28. Program at Children's Hospital, University Hospitals, Iowa City, is directed by Carroll Larson, M.D., professor and head of the Department of Orthopedic Surgery. Papers will be presented by members of the Society. Stephan Fox, M.D., Ottumwa, is current president of the Iowa Orthopedic Society.

IOWA CLINICAL SOCIETY OF INTERNAL MEDICINE . . . William L. Lillibridge, assistant dean, College of Medicine, University of Iowa, was appointed executive secretary of the Society this summer. Annual fall meeting of the Society will be December 2 in Iowa City. The Executive Council will meet the evening before. A medico-economic seminar for residents in the Department of Internal Medicine is in the planning stages and will be presented on a voluntary basis in the near future.

IOWA DERMATOLOGICAL SOCIETY . . . The Iowa Dermatological Society will present the Annual Ruben Nomland Memorial Lecture October 6. This will occur at 10:30 a.m. in the Medical Alumni Amphitheater of University Hospitals. Guest speaker will be Donald J. Birmingham, M.D., of Wayne State University. His topic will be, "Environment Intoxicants and Their Effect on the Skin."

IOWA ACADEMY OF FAMILY PHYSICIANS . . . Twenty-fourth annual Scientific Assembly of the Iowa Academy of Family Physicians will be October 25-26 at the Hyatt House in Des Moines. Speakers include Beverley T. Mead, M.D., professor and chairman, Department of Psychiatry, School of Medicine, Creighton University, and Phil Thorek, M.D., a Chicago surgeon.

IOWA CHAPTER, AMERICAN COLLEGE OF SURGEONS . . . Next meeting will be December 2 at Johnny & Kay's Hyatt House in Des Moines. Topic for consideration at the meeting will be peer review mechanisms. Members of all other surgical societies are invited to attend. Current chapter officers are Louis P. Alt, M.D., Dubuque, president; Cyrus L. Beye, M.D., Sioux City, president-elect, and Homer E. Wichern, M.D., Des Moines, counselor.

IOWA PSYCHIATRIC SOCIETY . . . October 13-14 are dates of postgraduate course in psychiatry planned in the Psychopathic Hospital Auditorium in Iowa City. Friday topics include cerebrovascular disease, psychopharmacology, forensic psychiatry and reports on two studies: (1) Alcoholism in Half Siblings, and (2) Adoptive Children of Felons. Saturday subjects include drug abuse, psychosurgery, behavior therapy, sex education in medical curriculum and physicians' attitudes toward care of the terminally ill patient. Ronald Carlson, J.D., professor of law, Donald Nibbelink, M.D., assistant professor of neurology, and Maurice Van Allen, M.D., professor of neurology, will join 10 faculty members of the Department of Psychiatry in presenting the program. Officers of the IPS are John Clancy, M.D., Iowa City, president, Hormoz Rassekh, M.D., Council Bluffs, president-elect, Richard E. Preston, M.D., Des Moines, secretary, William Bockoven, M.D., Ames, delegate, Selig Korson, M.D., Independence, alternate delegate, Herbert Nelson, M.D., Iowa City, councilor-at-large, and Philip R. Hastings, M.D., Waterloo, councilor.

IOWA CLINICAL SURGICAL SOCIETY . . . Fall meeting of the Society will be November 2, 3 and 4 at the Mayo Clinic in Rochester, Minnesota. Hospital tours are planned. John R. Walker, M.D., Waterloo, is president of the Society.

IOWA ACADEMY OF OPHTHALMOLOGY & OTOLARYNGOLOGY . . . A panel headed by Alson Braley, M.D., Iowa City, has studied the Academy this past year in terms of future activity. Report of the study panel was presented at the Academy meeting September 15.

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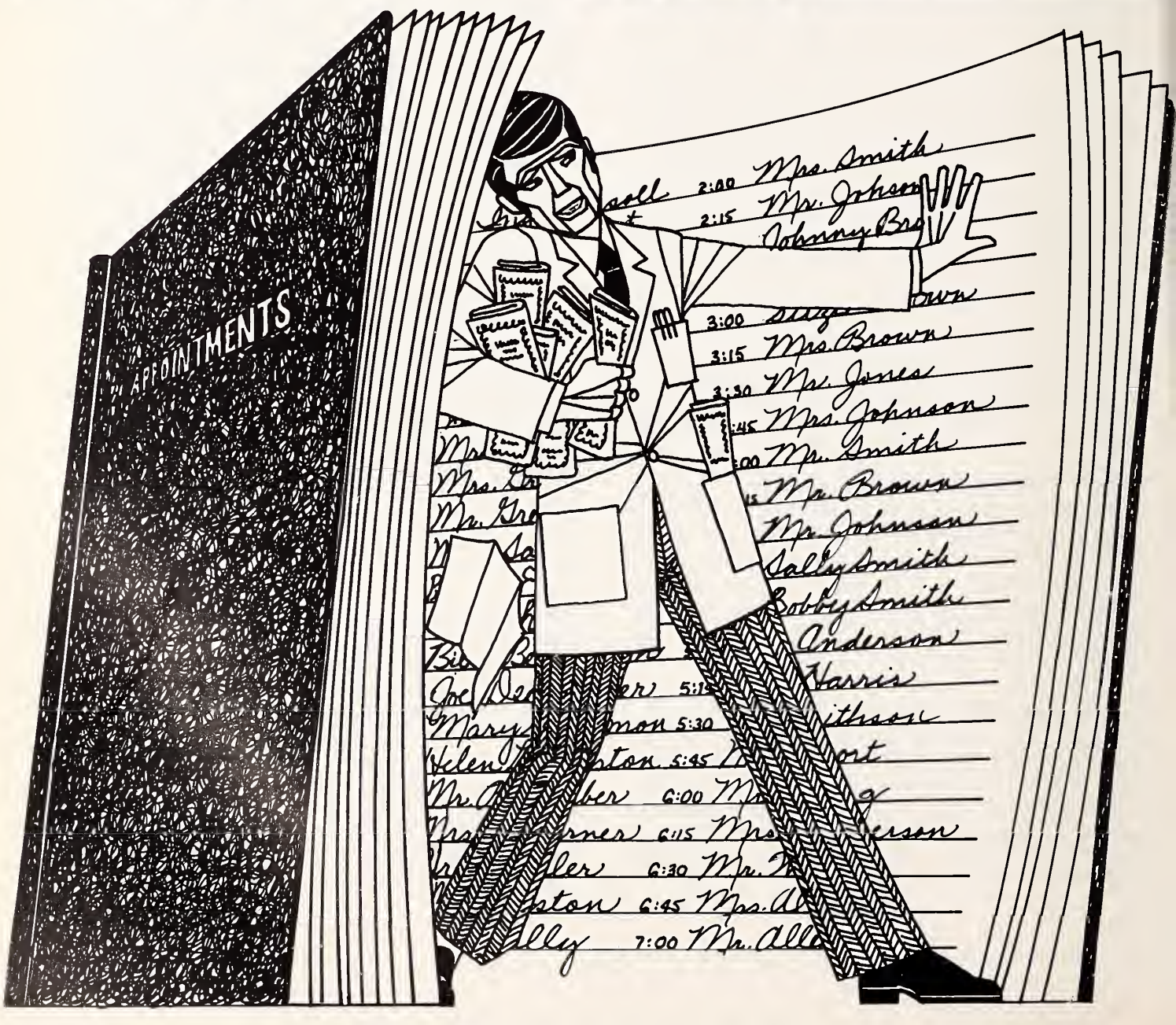
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Doctor's Business

by HOWARD D. BAKER

TAX SHELTERS

Tax Shelters in real estate, oil, cattle, eggs, vineyards, and citrus groves—to name a few—have been sweeping the country. All a promoter needs to do is attach the words *Tax Shelter* to his offering and he is virtually assured a sell-out. The larger the taxable loss he offers, the faster the offering will sell.

Investors today, in the 50% to 60% income tax brackets, are virtually ignoring basic investment values and adopting the premise that losses are profitable. Tax considerations and shelters will soften losses, but since the tax is not 100% they cannot completely absorb losses.

Even in the "leveraged" tax shelter where the deductible losses in the first years can exceed the actual investment, there is still no justification for assuming a basically unprofitable investment. It is incontrovertibly true if an investment showing a tax loss can be attractive, the same basic investment showing a profit can be proportionately more attractive.

Many current *tax shelter* offerings are sponsored indirectly by the ultimate tenant. The superficial attraction of the tax loss often results in an attractively discounted rental to the prospective tenant.

To illustrate the tremendous economic difference between a *tax shelter* and an *investment* we provide examples of two real estate ventures. Venture A is a *loser* by virtue of its low gross rental figure and Venture B a *winner* because of higher rentals.

The basic facts in both cases are the same, except for gross rental. The total venture cost is $1,000,000 with a $250,000 equity and a $750,000-25-year mortgage at 9%, requiring $75,000 annual debt service. Cash expenses are $45,000 in both cases.

Obviously, if you were selling these ventures strictly on *tax shelter,* Venture B would not sell—who wants an investment to increase, rather than decrease, income taxes? Venture A saves $15,000 income tax, while Venture B adds $5,000 to your tax.

Completely overlooked by tax shelter fanatics is the fact that while the buyer of Venture B will actually pay $20,000 more tax than the buyer of Venture A, he will have $20,000 more cash after tax.

If you examine A and B carefully, you will note that as you reduce gross income and increase the tax loss, for each dollar of cash flow you lose, you only regain 50 cents. However, as you increase gross income and reduce the loss, you gain a dollar of cash flow and lose 50 cents in tax. Consequently, the decision is whether you want to lose 50 cents or gain 50 cents, which is a pretty elementary decision.

5 Year Average Figures	Venture A	Venture B
Gross rental	$130,000 (13%)	$170,000 (17%)
Cash expense $45,000		
Interest 65,000		
Depreciation 50,000		
Total expense	160,000	160,000
Taxable income	$ -30,000	$ 10,000
Investment Status	**Venture A**	**Venture B**
Cash flow (gross rental less cash expense and serv.)	$ 10,000	$ 50,000
Tax savings @ 50%	15,000	-5,000
Equity buildup	10,000	10,000
"After tax" total investment gain	$ 35,000	$ 55,000
Per cent return on $250,000	14%	22%

Bear in mind true tax shelter is in high depreciation and interest write-offs. Look again at the example: depreciation, expenses and interest are identical in both cases.

If you are considering highly leveraged tax shelters, the principle is still the same. The same thing that magnifies your tax deductible losses will magnify economic gains to the same degree.

(Please turn to page 557)

Mr. Baker is Manager of the Financial Planning Department for Professional Management Midwest.

Morbidity Report for August 1972

Diseases	Aug. 1972	1972 to Date	1971 to Date	Most August Cases Reported From These Counties
Brucellosis	2	24	17	Scott, Story
Chickenpox	19	6450	5393	Des Moines, Dubuque, Johnson
Conjunctivitis	3	643	350	Black Hawk, Clay, Linn
Encephalitis				
Viral	1	6	3	Scott
Type unspecified	1	2	0	Wapello
Gastrointestinal viral infection	27	4274	5245	Johnson
German measles	5	384	663	Polk
Gonorrhea	496	4062	3756	Black Hawk, Linn, Polk, Scott
Hepatitis				
Infectious	28	203	213	Polk
Serum	2	43	11	Johnson
Histoplasmosis	1	20	14	Wapello
Impetigo	4	227	237	Allamakee, Scott
Infectious mononucleosis	18	594	749	Johnson
Measles	5	716	2239	Des Moines
Meningitis				
Aseptic	1	2	3	Dubuque
Bacterial	1	3	1	Johnson
H. influenza	1	9	5	Jones
Viral	2	4	3	Polk
Type unspecified	1	14	8	Sac
Mumps	18	5677	2956	Dubuque
Pneumonia	47	599	598	Scott
Rabies in animals	38	274	173	Scattered
Rocky Mountain Spotted Fever	1	2	0	Johnson
Roseola	1	6	9	Muscatine
Salmonellosis				
S. agona	1	1	0	Dubuque
S. enteritidis	6	18	8	Polk, Pottawattamie
S. hartford	1	1	0	Wright
S. infantis	2	8	0	Linn
S. java	2	8	1	Jefferson, Polk
S. minnesota	1	1	0	Johnson
S. montevideo	2	4	1	Linn
S. newport	1	11	8	Adair
S. rubislaw	1	1	0	Dubuque
S. typhimurium	15	52	29	Black Hawk, Floyd, Polk, Woodbury
S. typhimurium var. copenhagen	2	6	3	Black Hawk, Lee
Group C	1	1	2	Polk
Shigellosis				
S. flexneri	2	7	1	Polk, Woodbury
S. sonnei	38	193	104	Dubuque, Scott
Streptococcal infections	283	4826	4786	Johnson
Syphilis	51	337	423	Polk, Scott
Tuberculosis, active	8	76	88	Scott, Woodbury
Whooping cough	2	33	31	Polk

IOWA MEDICAL MISCELLANY

(Continued from page 517)

SOCIETY MEETINGS . . . IMS Board of Trustees and Judicial Council will meet Wednesday, October 25. Quarterly meeting of IMS Executive Council will be Thursday, October 26.

60 IOWANS RECOGNIZED . . . Sixty Iowa physicians have earned the 1971 Physician's Recognition Award of the American Medical Association.

RECEIVE GRANT . . . The U. of I. College of Medicine is one of six institutions to receive grants from the HEW National Heart and Lung Institute to establish new Lipid Research Clinics. The Iowa grant is for $477,000 and the principal investigators are William Connor, M.D., and Francois Abboud, M.D.

OSHA REQUIREMENTS . . . Reminder that even if they have only one employee, physicians must furnish a place of employment free from hazards that might cause serious injury or death. This is requirement of Occupational Safety and Health Act and subsequent standards devised by U. S. Department of Labor. A physician's guide to the law was prepared by the AMA Council on Occupational Health and was published in the February 14 issue of JAMA.

SOCIETY FEATURED . . . The Headquarters Building of the Iowa Medical Society is one of eight such state structures featured in the most recent issue of "The Executive," publication of the American Association of Medical Society Executives.

INFO RETRIEVAL . . . U. of I. Health Sciences Library has a MEDLINE terminal available for use at a nominal charge. MEDLINE is a computer-based on-line information retrieval system drawn from the MEDLARS (Index Medicus) data base at the National Library of Medicine. System contains citations from 1,100 medical journals, 1969 to present. Phone and mail requests for bibliographic searches on MEDLINE are accepted from Iowa physicians. Cost of a search is usually under $5. Further information is available from Health Sciences Library, University of Iowa, Iowa City 52240. (319/353-5776).

ANTIBIOTICS PARLEY . . . The third annual meeting on antibiotics and infection will be October 26, 27 and 28 at The University of Iowa. Five guest speakers will combine with U. of I. faculty to present the program. Inquiries should be directed to Ian M. Smith, M.D., Department of Internal Medicine, University Hospitals, Iowa City 52240.

Pathology Capsules

by ALEXANDER ERVANIAN, M.D.

ANTINUCLEAR FACTOR IN LUPUS ERYTHEMATOSUS

Since Hargraves' classic descriptions of the L.E. cell in 1948, many methods for the performance of this test have been described by various authors. As each technique appeared, its proponents felt their method was the most sensitive. Published surveys indicated a yield of positive L.E. cells from a low of 38% to a high of 81% in patients with proven systemic lupus erythematosus. In most laboratories, the L.E. cell phenomenon could be detected in perhaps 50 to 75% of the patients, at best. With the recognition that antinuclear antibodies were present in the serum of patients with systemic lupus erythematosus, tests were devised to detect these autoantibodies. With the development of the fluorescent antibody technique it became possible to detect these antibodies easily in most laboratories.

In systemic lupus erythematosus two definite nuclear antigens have been identified and well defined. These are deoxyribonucleic acid (DNA) and deoxyribonucleoprotein (DNA-histone). Antibodies to DNA are more specific for SLE but these are found in only approximately two-thirds of the patients. Antibodies to DNA protein are not as specific in the diagnosis of SLE but they are almost always present in SLE and the absence of such antibodies is strongly against the diagnosis of SLE.

The indirect immunofluorescent technique for identifying antinuclear antibodies is the easiest, most sensitive, and most reliable method of detecting systemic lupus erythematosus. In this technique, one can use whole antihuman gamma globulin labeled with fluorescein or fluorescein labeled immunoglobulin G. The only other reagents then required are the patient's serum and a source of nuclear material. A variety of sources of nuclear material have been used. These include rat liver, calf thymus, tissue cultures of fibroblasts, tissue cultures of Hela cells, sections of human tumors, cells from human tumors, and peripheral blood leukocytes of humans and other mammals.

By this technique, we can observe four different patterns of nuclear fluorescence in positive test sera. In the *diffuse* pattern, the entire nucleus fluoresces uniformly. This is the pattern most often seen in systemic lupus erythematosus. In another pattern, only the *periphery of the nucleus* fluoresces brilliantly. This pattern is seen most frequently in severe acute systemic lupus erythematosus. In the third pattern, one sees irregular *speckled* fluorescence in the nucleus. This can be seen in systemic lupus erythematosus but it is seen most frequently in other collagen vascular diseases and in hepatitis. The pattern we see most rarely is *nucleolar* fluorescence. In this pattern only the nucleolus stains. This is seen in other collagen vascular disorders, most commonly scleroderma.

It is apparent that what we are staining for is total antinuclear antibody which includes antibodies to both DNA and DNA-histone. If one uses fluorescein labeled whole antihuman gamma globulin, one can get a higher percentage of positive reactions than if one uses fluorescein labeled immunoglobulin G. Since approximately 99% of patients have an immunoglobulin G class of antinuclear antibody, this permits us to get a higher degree of specificity and to eliminate some of the more nonspecific reactions. In our hands, this technique is probably about 100% accurate in detecting patients with systemic lupus erythematosus. That is, that 100% of patients with systemic lupus erythematosus will have a positive test. Because of this, we no longer routinely perform the L.E. test for SLE. The L.E. test is performed only in selected cases when the fluorescent antinuclear factor has already been shown to be positive. The only other disease which causes this high an incidence of antinuclear factor is autoimmune hepatitis (lupoid hepatitis, plasma cell hepatitis, chronic progressive hepatitis, etc.). In this situation we get about 100% positive antinuclear factor also. In a much smaller percentage of cases, fluorescent antinuclear factor is seen in scleroderma, rheumatoid arthritis, discoid lupus erythematosus, Sjogren's disease, dermatomyositis, polyarteritis and occasionally polymyositis. The true incidence of

(Please turn to page 557)

This series of review articles is provided by the Iowa Association of Pathologists. This discussion has been prepared by Alexander Ervanian, M.D. Dr. Ervanian practices pathology in Des Moines.

Educationally Speaking

by RICHARD M. CAPLAN, M.D.

WHAT WOULD YOU DO WITH 24 DAYS A YEAR?

I'm writing this at a postgraduate meeting. I tired of the presentations (and only into the second day of the five day meeting!) and sought a quiet corner. This meeting (an international congress) has inherent problems because of the destructively short time allowed each presenter, speakers with thick accents (or simultaneous translators of variable skill), and the rather uncritical choice of presentations. It all reflects a desire to have a mix of nations rather than to assure the reporting of quality work. Obviously, this is not a "course" planned with carefully chosen topics and speakers. Rather, it is a largely unscreened series of presentations in response to an open invitation to submit abstracts.

These dissatisfied observations are associated with my having learned recently that 65% of the physicians in Israel are employed by a large health cooperative which has included a new feature in the contracts of its participating physicians —*24 days each year for continuing medical education at the major university medical center in Jerusalem!* Furthermore, registration fees and lodging are paid by the employer. But realize, on the other hand, the average Israeli physician will receive an annual salary with an earning power equivalent to about $10,000-$15,000.

Here is what I wonder: What would *you* do with paid days in continuing medical education equal to 3 *times* the requirement for maintaining membership in the Academy of Family Practice? How would you choose to spend that time? You might simply elect not to use all of it, choosing without penalty to work instead. You might gorge yourself randomly from the great catalogue of offerings published in JAMA (first issue of August annual'y). Or you could pursue some pet interest you never before were able to indulge. Or you might undertake a rigorous effort in self-assessment, hoping to identify specific areas important to your practice where perhaps you are inappro-

(Please turn to page 557)

Dr. Caplan is Assistant Dean, Continuing Education, at The University of Iowa College of Medicine.

Continuing Education Courses & Conferences

Please call or write Office of Continuing Medical Education, College of Medicine, for further information on these programs. Telephone 319-353-5763.

Oct. 6-7	Dermotology for the Dermatologist
Oct. 6-7	Iowo Dermotologicol Society*
Oct. 9-12	Intensive Coronary Core Monogement Cou:se
Oct. 13-14	Postgroduote Course in Psychiatry
Oct. 13-14	*Iowo Psychiotric Society
Oct. 16-20	Clinicol Echo-Ophtholmologrophy Course (Half-doy sessions)
Oct. 19-21	In-House Conference for Practitioners
Oct. 21-22	Conference on Rodiology
Oct. 21-22	Iowo Radiological Society*
Oct. 26-27	Antibiotics ond Infection/Course in Infectious Diseose
Oct. 26-28	In-House Conference for Proctitioners (Closs of 1947)
Nov. 1	Ophtholmology Clinicol Conference
Nov. 4-5	Eye Enucleotion Course
Nov. 8	Diet Theropy U.S.A.
Nov. 10	Surgery Postgroduote Conference
Nov. 11	Concer Teoching Doy

*Society meeting held in conjunction with postgraduate course.

Unless otherwise specified all courses and conferences ore held at The U. of I. College of Medicine, Iowa City.

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About IOWA Physicians

Dr. R. S. Gerard, of Waterloo, caught a near record-size fish on a recent Canadian fishing trip. He also sustained a minor injury in a plane accident. He was cut on the forehead when a downdraft caught his plane as he was taking off from a lake northwest of Red Lake, Ontario. The plane went down in a swamp area which somewhat cushioned the impact and reduced both injury and damage. The northern pike caught by Dr. Gerard in a virgin lake near Lake Donald, Ontario, measured 48 inches and weighed about 35 pounds.

Dr. Rafael A. Roure, of Glenwood, is constructing a new clinic which should be ready for occupancy in late October.

Dr. Charles Jons and **Dr. G. L. Fanning** have joined the McFarland Clinic in Ames. Dr. Jons will limit his practice to diseases of the ear, nose and throat. A native of Sac City, he received the M.D. degree at The U. of I. College of Medicine. After serving his internship at Parkland Hospital in Dallas, Texas, he completed an otolaryngology residency at the University of Washington in Seattle, Washington. Dr. Jons completed two years of active duty with the U. S. Air Force in Southeast Asia, serving at Clark Air Force Base in the Philippines and as an otolaryngology consultant in Viet Nam, Thailand and Taiwan. Dr. Fanning, a native New Yorker, received the M.D. degree at Upstate Medical Center in Syracuse, New York, in 1966. He completed postgraduate medical training at Strong Memorial Hospital in Rochester, New York, and served with the U. S. Army at Fort Knox, Kentucky, from 1970 to 1972. He is certified by the American Board of Anesthesiology.

Drs. Phillip and **Mary Couchman,** Mt. Pleasant physicians for 18 years, have moved to Iowa City where Dr. Phillip Couchman is enrolled as a full-time graduate student in the College of Education at The University of Iowa. Dr. Couchman plans to complete his studies in August, 1973, and may continue his medical career in a teaching capacity.

Dr. F. E. Marsh, Sr., of Council Bluffs, has been named Volunteer of the Month by the Council Bluffs Volunteer Bureau. Dr. Marsh is a volunteer physician for Red Cross Bloodmobile visits, has served four years on the board of directors of the Visiting Nurse Association and represents the VNA on the United Fund Budget Committee. Dr. Marsh provides physical examinations for high school football and basketball players. He is also active in the Meals on Wheels program, serving on its board of directors.

Dr. F. O. W. Voigt, of Oskaloosa, president of the Iowa Heart Association, has announced the awarding of research grants for the coming year in Iowa. These grants total $106,815. They have been presented to heart research scientists at three Iowa institutions—University of Iowa, Iowa City; Iowa State University, Ames; and Wartburg College, Waverly.

Dr. A. Dudley Dennison, Jr., of Panora, was main speaker at the Guest Night Dinner presented recently by the Christian Women's Club in Okoboji. Dr. Dennison's topic was "The Heart Has Many Faces."

Dr. John Maxwell, of What Cheer, is retiring after 59 years of medical practice in the What Cheer community. A life member of the Iowa Medical Society, Dr. Maxwell completed his medical education at the University of Illinois in Chicago. He plans to make his home in Iowa City where his two sons, **Dr. John Maxwell, Jr.,** a pediatrician, and **Dr. Paul Maxwell,** a dentist, are located.

Dr. Hugo A. Lindholm, of Estherville, has been elected to fellowship in the International Academy of Proctology. A 1940 graduate of The U. of I. College of Medicine, Dr. Lindholm also holds membership in the International College of Surgeons and the American Society of Abdominal Surgeons.

Dr. Charles W. Beckman, of Kalona, is now occupying a new medical facility built by him and located on Highway 22. The office has several examining and treatment rooms as well as x-ray and emergency surgery facilities.

Dr. Harold Moessner, of Amana, has been appointed medical director of the MECCA (Mid-Eastern Communities Council on Alcoholism). Dr. Moessner, a general practitioner in Amana, is medical director of the University Detoxification Unit at Oakdale, as well as a staff member of the Family Practice Department at The U. of I. College of Medicine.

Dr. V. H. Carstensen, of Waverly, has been named a Diplomate of the American Board of Family Practice.

Dr. Donald Tyler, formerly of Fort Dodge, has opened an office for the practice of internal medicine in Marshalltown. Dr. Tyler received the M.D. degree at The U. of I. College of Medicine, served his internship at Toledo Hospital in Toledo, Ohio, and a residency in internal medicine at University Hospitals in Iowa City. A member of the Iowa Clinical Society, Dr. Tyler practiced medicine in Fort Dodge for 17 years.

Dr. John Rodway has joined The Bankers Life in Des Moines as assistant medical director. A native of Toronto, Ontario, Canada, Dr. Rodway received the M.D. degree at Queen's University in Kingston, Ontario. Prior to joining The Bankers Life, he was a physician at the Streetsville (Ontario) Medical Centre.

An exhibit designed by two U. of I. College of Medicine physicians earned a Certificate of Merit Award at the AMA Annual Meeting in San Francisco. **Dr. Christian E. Radcliffe,** professor of dermatology, and **Dr. Larry W. Cole,** resident in dermatology, won top honors in the dermatology section with a display, "Electrosurgery of the Skin." The exhibit demonstrated the use of various electrical current modalities in the surgery of benign skin lesions, precancerous skin problems and various skin cancers.

Dr. F. B. Leffert, of Centerville, has been named to the Iowa Horsemen's Hall of Fame. This practice of honoring outstanding horsemen was begun by the Society Horse Show in 1958. Each year since at the annual event pictures of selected horsemen are hung at the State Fairgrounds in



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Des Moines. Dr. Leffert became interested in society horse shows in 1940 and has since produced numerous winners. Now 80 years old, he continues to be actively engaged in his practice of medicine started in Centerville in 1923.

Dr. Daniel Cole has joined **Dr. John F. Kelley** in the practice of medicine at Fort Dodge. Dr. Cole received the M.D. degree at Creighton University School of Medicine in 1971 and served his internship at St. Joseph's Hospital in Omaha.

Dr. Clifford L. Rask, of Maquoketa, returned recently from a two-month stint as a volunteer doctor at Curran Lutheran Hospital in Liberia, 135 miles inland from the West African coast. An article in a Lutheran church publication prompted Dr. Rask to accept this unusual and remote assignment. Dr. Rask reports his experience was very rewarding and he encourages other physicians to participate in medical missionary work.

Dr. Mohammed Badruddoja has joined **Drs. M. G. Parks** and **Stephen S. Jewett** in the practice of medicine at Centerville. Dr. Badruddoja is a graduate of Dacca Medical College of Bangladesh. He is a board certified general and chest surgeon and has been in the United States 10 years.

Dr C. E. Block, Davenport's oldest practicing physician, has retired after 57 years of general practice in the Quad-City area. During his more than half-century span of medical practice, Dr. Block, a native of Davenport, delivered several generations of children. He received the M.D. degree at The U. of I. College of Medicine and served his internship at Montreal General Hospital in Canada. He is a past president of the Scott County Medical Society and a life member of the Iowa Medical Society.

Dr. C. Harlan Johnston, of Des Moines, joined the medical staff of the Veterans Administration Hospital in Des Moines in mid-August. Dr. Johnston is serving in the Hospital's Admitting Department. He has terminated his private practice in Des Moines which he began in 1936. Dr. Johnston is a member of the Society's Committee on Industrial Health and served as its chairman for a number of years.

Dr. Helen E. Halbert, formerly of Tomah, Wisconsin, has joined the staff of the Cherokee Mental Health Institute, as chief of the alcoholism and drug units. Dr. Halbert is a graduate of the

Women's Medical College of Pennsylvania and a board certified psychiatrist.

Dr. Rodney Carlson, of Ankeny, was a candidate for the Board of Directors of the Des Moines Area Community College.

Drs. Donald Boyle, C. L. Beye, A. H. Kelly, D. R. Wassmuth, H. N. Hirsch, M. L. Zucker, and **W. L. Jackson,** all of Sioux City, participated in a KCAU-TV program "A Heartbeat Away," televised on August 30. Viewers called in questions dealing with heart disease. **Dr. George Spellman,** also of Sioux City, moderated the program, which was a combined effort of the Woodbury County Medical Society, the Northwest Division of the Iowa Heart Association and Channel 9.

At the August meeting of the Wright County Medical Society, **Dr. Thornton Bryan,** associate professor in the Department of Family Practice at The U. of I. College of Medicine, spoke on "Medical Records of the Future."

Dr. David Miller has been named medical director of the Maytag Company in Newton. A native of Dublin, Ireland, Dr. Miller was formerly medical director at the Kenosha, Wisconsin, plant of American Motors Corp.

Dr. Rubin H. Flocks, an internationally recognized authority in the medical aspect of urology, was honored during a special urological symposium in September at The U. of I. College of Medicine. Many of the specialists attending the symposium were trained in urology at The U. of I. College of Medicine under Dr. Flocks, who came to The U. of I. in 1931 and who has been head of urology since 1949. Dr. Flocks, president-elect of the Iowa Medical Society, has also served as president of three of the top professional organizations in his field—the American Urological Association, the Clinical Society of Genito-Urinary Surgeons and the American Association of University Urologists.

Dr. Gilbert Harris has joined the Wolfe Eye Clinic in Marshalltown. A 1966 graduate of The U. of I. College of Medicine, Dr. Harris served his internship at the San Bernardino County General Hospital in San Bernardino, California. Following completion of a residency in ophthalmology at the University of Wisconsin in Madison, he served two years at Ft. McClellan, Arkansas, where he was in charge of the Eye-Ear-Nose-Throat Clinic.

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Dr. Maxwell Abramson, assistant professor of otolarynology and maxillofacial surgery at The U. of I. College of Medicine, has been awarded a $7,400 grant from the Deafness Research Foundation to support further study into a condition that produces hearing loss for many Iowans. The study involves an enzyme collagenase, which is now thought by Dr. Abramson to be the active agent for bone loss in a middle ear disease.

Problems related to epilepsy will be the concern of an organization recently established to serve Benton, Cedar, Iowa, Johnson, Jones, Linn and Washington Counties. The organization, to be known as "Epilepsy Association of Area X," will be affiliated with the Iowa Chapter of the Epilepsy Foundation of America. The following U. of I. faculty members will serve as consultants to the organization: **Dr. John C. MacQueen,** executive officer and medical director, State Services for Crippled Children; **Dr. John R. Knott,** professor and head, Division of EEG and Neurophysiology; **Dr. Maurice W. Van Allen,** professor of neurology; and **Dr. Carroll B. Larson,** professor and chief of the Department of Orthopedic Surgery.

Dr. A. Dudley Dennison, of Lake Panorama, former chief of cardiology at Veterans Hospital in Des Moines, and **Dr. Lawrence L. Marshall,** of Jefferson, director of the coronary unit of the Greene County Medical Center, were guest speakers at a recent coronary care symposium for nurses in Jefferson. The Iowa Heart Association and the Greene County Medical Center co-sponsored the educational program.

Dr. R. W. Fincham, associate professor in the Department of Neurology at The U. of I. College of Medicine, was guest speaker at the first fall meeting of the Wapello County Medical Society. Dr. Fincham spoke on "use of the electroencephalograph in diagnostic problems and cerebral death." The talk was presented to help acquaint physicians in Ottumwa and the surrounding area with the new EEG facilities which have recently been installed at the Ottumwa Hospital.

Dr. Tom Mangan, a Forest City physician and racing enthusiast, experienced a "close call" in August while competing in preliminary events at the Blackhawk Race Track near Beloit, Wisconsin. Dr. Mangan was making one of a dozen turns on the two-mile track when he collided with another driver. His wheel rolled over the top of the other car's wheel and threw the car into the air. Dr. Mangan estimated he was airborne approximately 10 feet and was traveling about 90 miles per hour. He expected the car to flip end for end when it hit the ground, but the suspension on the front wheels gave way when the car hit the ground and it spun around and into a concrete retaining wall. Dr. Mangan and his racing partners were able to rebuild the car in time to compete in the finals. He placed fourth in the final race.

Dr. James T. Bradbury, professor of obstetrics and gynecology at The U. of I. College of Medicine, received an honorary Doctor of Science degree at the August Commencement exercises at Montana State University. Dr. Bradbury, director of the clinical laboratory in the Department of Obstetrics and Gynecology, received the Bachelor of Science degree at Montana State University in 1928.

DEATHS

Dr. R. L. Feightner, 78, long-time Fort Madison physician, died August 3 at Sacred Heart Hospital in Fort Madison. A graduate of the Chicago College of Medicine and Surgery, Dr. Feightner came to Fort Madison as a staff surgeon at the old Santa Fe Hospital in 1917. He opened his own office in 1929 and retired in 1969 after 52 years in

the medical profession. From 1932 to 1964, Dr. Feightner was chief medical officer at the Iowa State Prison and in the 1950s when a new hospital was built at the penitentiary, it was named in his honor. He was a member of the Industrial Medical Association, American Association of Railroad Surgeons, the American College of Surgeons, the College of Abdominal Surgeons, Fort Madison Medical Association, Lee County and Iowa Medical Societies and the American Medical Association.

Dr. W. G. Rowley, 91, of Sioux City, died August 9 at the Westwood Convalescent and Rest Home in Sioux City. Dr. Rowley received the M.D. degree at the Sioux City College of Medicine in 1908 and practiced medicine in Sioux City from 1908 until his retirement in 1968. He was an Army veteran of World War I, a member of the Missouri Valley Medical Society and the Woodbury County Medical Society, a life member of the Iowa Medical Society and American Medical Association, and a charter and life member of the American Interprofessional Institute.

Dr. J. G. Clapsaddle, 87, of Burt, died August 21 at Good Samaritan Nursing Home in Algona. A 1912 graduate of The U. of I. College of Medicine, Dr. Clapsaddle practiced medicine in Burt for more than 50 years. He was a member of the Kossuth County Medical Society, American Academy of General Practice, and a life member of the Iowa Medical Society and American Medical Association.

Dr. Willis M. Fowler, 72, professor emeritus of internal medicine at The U. of I. College of Medicine, died September 10 at his home in Iowa City. A 1926 graduate of The U. of I. College of Medicine, Dr. Fowler completed his internship at Cleveland, Ohio, City Hospital and Henry Ford Hospital in Detroit, Michigan. He served his residency in internal medicine at The U. of I. and had been a medical faculty member since 1929. In 1970, Dr. Fowler was honored by the American College of Physicians by being elected a Master, highest membership category in the international medical specialty society. A member of the Iowa Medical Society and the American Medical Association, he served as president of the Central Society for Clinical Research, Central Interurban Clinical Club, Central Clinical Research Club, Iowa Chapter of the Society of Experimental Biology and Medicine, Central Hematology Club, and the Iowa Clinical Medical Society. In 1968, Dr. Fowler was the recipient of the Ben T. Whitaker Award presented by the Interstate Postgraduate Medical Association of North America.



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BOOK REVIEWS

CURRENT DIAGNOSIS AND TREATMENT, by *Marcus A. Krupp,* M.D., Los Altos, Calif., Lange Medical Publications, 1972, $11.00.

This is a concise, well-ordered resource manual. It is easy to use by either the table of contents or the index. The material is brief and to the point with adequate bibliography if one wishes to delve more deeply. The 962 pages seem abundant but the thrust of the authors is to offer a ready source of usable information.

I compared the 1971 manual with this new edition. The table of contents has been indexed a bit differently but the body of material is changed little, other than page format. The chapter on diets is deleted from the 1972 book. There is added a minor paragraph at the end of most chapters on manifestations of parasitic diseases pertinent to the system being discussed. If one had a 1971 manual in good condition, my advice would be to wait for later editions before updating. If your library does not include this volume, it is a good general reference resource. *Loran F. Parker,* M.D.

REVIEW OF MEDICAL MICROBIOLOGY, by *Ernest Jowetz,* M.D., *Joseph L. Melnick,* Ph.D., and *Edward A. Adelberg,* Ph.D., Los Altos, Calif., Lange Medical Publications, 1972, $8.00.

The review of this valuable book need not be detailed. Ten editions since 1954 will speak well for the continued efforts by the authors to keep up-to-date. This book contains data published elsewhere within the last six months. Paper-backed, well-written, inexpensive ($8.00) and very adequately illustrated and indexed, this book deserves a place in your office, doctor. I am sure you will use it often to re-establish little details about microbiology which have slipped away from you, or bring yourself up-to-date on new developments. *M. E. Alberts,* M.D.

PERSONALITY AND SCIENCE, Ciba Foundation Blueprint, ed. by *I. T. Ramsey* and *Ruth Porter.* Edinburgh and London, Churchill and Livingstone, 1971.

This collection of papers represents an attempt to bring together the thoughts of scientists with special interest in behavioral phenomena, but based in different scientific disciplines. The purpose was to seek a common ground for discussion of personality, and to establish both empirical and philosophic grounds for utilization of quite disparate sciences for an understanding of personality. The senior editor, Dr. Ramsey, is the Lord Bishop of Durham. His concerns with theology, sociology, values and social responsibility orients this symposium to attempt to establish a meaningful relationship between the physical sciences, the psychological sciences and Christian theology.

The individual papers deal with such diverse subjects as the effects of leukotomy, endocrine disorder, castration, drugs and psycho-analysis as they affect behavior and alter personality. The ethical considerations in such undertakings are also discussed.

Each paper raises important questions for both science and theology and is, therefore, provocative. The conclusions are, as one might expect, less than completely satisfying. One gains the impression that the good Bishop, in his own essay on Human Personality, over-reaches himself in an effort to fit the findings of science with Christian theology. The terribly difficult problems of ontology and epistemology which have bedeviled all who have sought to construct a theory of Personality (which incorporates the data of the physical scientists, the behavioral scientists and theologians) have not been resolved by this effort. However, it is well that the effort be continued and this little book merits our attention. *Sidney L. Sands,* M.D.

CHEMICAL AND BIOLOGICAL ASPECTS OF DRUG DEPENDENCE, ed. by *S. J. Mule,* Ph.D., and *Henry Brill,* M.D., Cleveland, Chemical Rubber Company Press, 1972, $35.00.

Some 33 authorities contribute to this rather comprehensive compendium of studies in the area of drug dependence. Each writer has been given the task of vigorous exploration of the literature in particular areas, or involving specific drugs, and then summarizing the findings. This provides the reader with a readily accessible source of information and opinion concerning much that has been either unfamiliar, unknown, or misrepresented in regard to drugs. By keying the frame of reference to chemical and biological aspects of drug dependence, the authors are able to deal critically with the facts and fictions comprising the current "knowledge." They also, in many instances, cite psychological studies and draw inferences which are useful in understanding behavioral manifestations of dependence on different drugs.

This is a solid and commendable reference work which the physician should have available if he wishes to be knowledgeable about the "drug scene" and able to speak convincingly to those who seek his counsel. *Sidney L. Sands,* M.D.

UNIVERSITY DRUG LETTER

(Continued from page 525)

functions by combining with and thereby preventing the absorption of some of the bile salts present in the intestine. Bile acid production from cholesterol is stimulated in order to replace the excreted material. If cholesterol intake is restricted, the result will be depletion of the body cholesterol stores and, usually, a decrease in the plasma cholesterol concentration. Dietary vitamin supplements should be prescribed when the dosage of cholestyramine is in the range of 24-36 gm, for the resin also binds the fat soluble vitamins and decreases the efficiency of their absorption. Laxatives often are needed when these high dosages are prescribed. Cholestyramine is widely used in lipid clinics and is considered by most investigators to be effective in the treatment of hypercholesterolemia, but it has not received F.D.A. approval as yet for this purpose.

Nicotinic Acid (Niacin). Although effective in many cases of Types II, IV and V, nicotinic acid is not without serious problems. It appears to operate either by inhibiting free fatty acid release from the adipose tissue or by exerting a direct effect on lipoprotein synthesis in the liver. Very high doses, from 3-6 gm daily, are required for therapeutic effects. In an attempt to minimize side effects, one usually begins treatment with a dose of 1 gm daily and approaches the higher level over a three week period. The side effects, including flushing, pruritus, hyperpigmentation and gastrointestinal disturbances diminish considerably with time. Nicotinamide, which does not produce these symptoms, has no value as a hypolipidemic drug. Nicotinic acid should be reserved for cases in which either clofibrate or cholestyramine has failed to produce an adequate response or when these drugs must be discontinued because of adverse reactions. It is often employed in conjunction with a second drug in an attempt to enhance the hypolipidemic response.

D-Thyroxine (Choloxin). This isomer of the thyroid hormone is effective in certain patients with the Type IIa abnormality. The D-isomer reportedly has the same cholesterol-lowering effect as the hormone but considerably less hypermetabolic effect. Dosages of 4-8 mg daily are required. In these amounts, D-thyroxine can produce nervousness, hyperactivity and diarrhea. It also can accentuate pre-existing angina pectoris. Yet, this drug merits serious consideration because, at present, there is no ideal agent for the treatment of Type IIa, the form of hyperlipidemia associated with premature, severe coronary atherosclerosis.

Other Available Drugs. The other hypolipidemic drugs that are currently available are not used widely. β-sitosterol (Cytellin), a plant sterol, inhibits cholesterol absorption. Large doses are required, and the therapeutic response often is not impressive. Neomycin (Neomycin Sulfate Tablets) in doses of 0.5-2 gm daily, is effective in certain cases of Type IIa. This antibiotic appears to function by inhibiting bile acid absorption. It is reported to be more effective when used in conjunction with clofibrate.[9] A progestational agent (Norethindrone Acetate) has been used effectively to treat women, but not men, with Type V hyperlipidemia.[10]

Newer Hypolipidemic Drugs. A number of drugs currently under investigation appear to have considerable promise as lipid-lowering agents.[11] These include colestipol, a cholestyramine-like resin and halofenate, a clofibrate-like compound. As more of these drugs come into general use, it is likely that a specific agent for treatment of each hyperlipoproteinemia type will become available. Therefore, the importance of typing each case of primary hyperlipidemia almost certainly will increase in the future.

Rationale for Drug Treatment.[12] The use of hypolipidemic drugs in those cases of hyperlipidemia that cannot be controlled by diet alone is accepted now almost universally. Yet, the decision to prescribe these drugs should not be taken lightly. There is much experimental evidence to suggest that lowering of the plasma lipid concentration will slow the development of atherosclerosis and even produce regression of existing lesions.[13] However, at present, we do not have proof that a drug-induced response will prevent or alleviate atherosclerosis in man. Many cases of hyperlipidemia are uncovered only after angina pectoris, intermittent claudication or frank myocardial infarction occur. Reduction of the plasma lipid concentrations, even if useful at an earlier stage of atherosclerosis, may be ineffective at this point. It is true that the two drugs that are used most frequently, clofibrate and cholestyramine, have produced only minor side effects during their relatively short span of clinical usage and, at this time, appear to be quite safe. However, there is no assurance that this will prove to be true over the long term. In this regard, the increase in microbodies in the liver cells of animals given clofibrate is disturbing.[14] For these reasons, one almost never treats a child under the age of six with hypolipidemic drugs. In older children only cholestyramine is recommended, and this is reserved for only the most severe familial Type IIa cases. However, a different approach is recommended for the adult with primary hyperlipidemia, particularly Types II and III and possibly, IV and V. Here, the danger of atherosclerosis and its complications is so great that a calculated risk is warranted. This overriding consideration leads me to suggest that the hypolipidemic drugs should be employed in adults with primary hyperlipidemia when the defect cannot be satisfactorily regulated by dietary measures alone.

REFERENCES

The references noted in this article are available on request from either the author or the JOURNAL OF THE IOWA MEDICAL SOCIETY.

RADIOLOGY WINDOW

CASE NO. 6

(Continued from page 522)



Figure 2

The radiographs may give one the erroneous impression of a bilobed gall bladder; however, the laminographs reveal there are two cystic ducts merging into a common duct. The diagnosis of a rare anomaly, a double gall bladder, is correct in this case.

EMBRYOLOGY AND DISCUSSION

The most widely accepted embryologic explanation for this anomaly is that the rudimentary duct buds are found on the embryo's bile ducts. Normally, these buds disappear, however if one persists and grows the result is an accessory gall bladder. A duplication of the gall bladder may occur anywhere along the ducts: cystic, common or hepatic.

There are two varieties: (1) the ductular type with each duct emptying into the same or different ducts of the extrahepatic biliary duct system, and (2) the inverted Y-shaped type where two ducts merge into a common cystic duct. The case presented here is of the inverted Y-shaped variety and occurs in 1 to 3 of the other variety. Incidence of double gall bladder in the literature is 1 in 3,000 to 4,000, according to Boyden. The incidence of the inverted Y-shaped, presented here, is 1 in 9,000, according to Simendinger. The diagnosis of double gall bladder is not very difficult to make, but laminography may be required to visualize the cystic ducts. This is the only case seen at Mercy Hospital, Des Moines, in the past 21 years.

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VD PROGRAM ON TV SCHEDULED OCTOBER 14

The Iowa Educational Broadcasting Network (KDIN, Channel 11, Des Moines; KIIN, Channel 12, Iowa City, and Channel 32, Waterloo) will help launch a national venereal disease awareness campaign October 14 at 9 p.m. with an unusual television special.

The 90-minute color program will explain the genesis, development, dangers and prevention of venereal diseases.

PATHOLOGY CAPSULES

(Continued from page 545)

fluorescent antinuclear factor in these cases is not known because there is a great variation depending upon which fluorescein labeled immunoglobulin class is used. One should bear in mind that there is a small but significant percentage of normal population, particularly the aging population, which develops fluorescent antinuclear factor antibodies. The incidence of this will vary between 3 and 7% depending upon the technique used. Therefore, in elderly people a positive test for antinuclear factor must be interpreted with caution.

SUMMARY

In summary, the indirect immunofluorescent technique for detecting antinuclear antibodies approaches 100% in detecting patients with systemic lupus erythematosus. There are, for all practical purposes, no false negatives. It follows that a negative fluorescent antinuclear antibody test is of great significance in ruling out SLE. In the other diseases, antinuclear antibody tends to be present in low titre, whereas in SLE the antinuclear antibody tends to be present in high titre. Generally, a titre of over 1:40 is most likely to represent systemic lupus erythematosus. We now do the routine screening at a 1 to 5 dilution and if this is positive, we then perform titres at higher dilutions. The indirect immunofluorescent technique for detecting antinuclear antibodies should become the routine method for detecting SLE in all laboratories and should replace the L.E. preparation.

EDUCATIONALLY SPEAKING

(Continued from page 546)

priately low in knowledge or skills. Or maybe you would holler "Foul," as I think I would, and argue for time to be allowed for reading, as well as enrollment in a formal course. Maybe reading could be made more useful and more "certifiable" by developing a bibliographic list for a course called "Readings in special topics—credit as arranged." A brief summary or reaction might be prepared by the student and mailed into the academic center, in the manner of a correspondence course, to earn a predetermined number of "hours of credit." Or you might try to wrangle credit for pursuing other areas of study leading to greater self-fulfillment or more responsible citizenship, such as languages, history and appreciation of the arts, political science, economics, and so on.

But even though I'm a fond advocate of continuing education, the prospect of Iowa physicians (which number about the same as Israel's) each having 24 days a year to spend in formal continuing education courses really gives me the cold shivers. Since the University of Iowa College of Medicine is the major provider of formal continuing medical education in this State, I suspect I'd go batty trying to provide appropriate opportunities. Perhaps it's possible, after all, to have too much of a good thing. Or maybe I'd have to work desperately to foster high quality educational effort in local communities throughout the State. . . . Now *that's* worth working for, even now. . . .

DOCTOR'S BUSINESS

(Continued from page 543)

As you examine more of these so-called tax shelters you become more impressed we are obsessed with tax considerations to the nearly total exclusion of basic economic and investment considerations. Probing deeper, we wonder if rather than "tax shelter" these ventures do not basically shelter unsound management principles and provide major corporate tenants with substantially discounted rentals.

While the loss-type *tax shelters* are plentiful, the real sound and profitable tax sheltered *investment* is much harder to find, but is still available. This is not strange or unusual since sound investments still require judgment and selectivity.

If you are looking for an investment you must examine it initially for its long and short term profit potential—then and only then will tax considerations be significant.

In addition to the frequent absence of valid investment merit in these ventures and a gross overemphasis of *tax losses,* all of these tax shelter promotions are coming under severe scrutiny by the IRS, the Administration and Congress.

During the past year adverse rulings have been issued on prepaid interest in real estate ventures, feed inventories in livestock ventures, and depreciation recapture as ordinary income in all *tax shelter* ventures. It is almost certain this scrutiny will continue and new rulings will be to the detriment of investors.

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IN THE PUBLIC INTEREST



PREFER CONTRACTUAL AGREEMENTS IN IOWA HMO'S

The Health Maintenance Organization (HMO) is a popular and principal topic these days when persons interested in the provision of health care engage in conversation. The Iowa Medical Society is intensely interested in the HMO concept and has been a supporter of sound State enabling legislation. Such legislation still remains to be passed.

In the ongoing debate the complex and still uncertain nature of the HMO is generally acknowledged. Even so, the concept has captured the imagination of many. We've attempted to describe the basic HMO structure on this page previously.

This month we provide an up-date on the HMO. In recent weeks a special Legislative Study Committee has moved forward with its assigned task, i.e., to determine what provisions should be included in any State enabling legislation. This work in preparation for the 1973 General Assembly is welcomed by the Iowa Medical Society. It is the Society's hope a broadly-acceptable bill will evolve from the Committee's deliberations and will be ready for the upcoming legislative session.

The Iowa Medical Society was privileged to present comments recently to this Legislative Study Committee. The Society's principal spokesman on this occasion was Thomas A. Burcham, M.D., Des Moines, treasurer and member of the Board of Trustees.

SOCIETY POSITION

Said Dr. Burcham, "The Iowa Medical Society is on record as being in support of experiments and pilot projects to determine as conclusively as possible if the Health Maintenance Organization offers a viable adjunct or alternative to our present system of health care delivery. It goes without saying there has been a great deal of interest in the HMO in recent years. It has been touted by many as a wholly new concept. Most often, however, those discussing the HMO are describing a closed-panel prepaid group practice system which has existed in this country for many years. . . ."

For readers whose understanding of the HMO is still limited, the following brief descriptive statement may be helpful in comprehending what has been and will be said: *The HMO is an organized system of health care which accepts the responsibility to provide or otherwise assure the delivery of an agreed-upon set of comprehensive health maintenance and treatment services for a voluntarily enrolled group of persons in a geographic area, and it is reimbursed through a prenegotiated and fixed periodic payment made by or on behalf of each person or family unit enrolled in the plan.*

MEDICAL BEDROCK

As consideration is given to a particular form of health care delivery, it logically follows that the medical profession must constitute the bedrock for that or any approach. Physicians play the principal and first-line role in medical diagnosis and determination of treatment. Because it believes this to be fundamental, the Iowa Medical Society has assigned to itself responsibility (1) for studying the HMO concept in some depth, and (2) for evaluating its emergence in this country. Based on Society findings, the 1972 IMS House of Delegates agreed HMO enabling legislation in Iowa should have three basic principles included within its framework:

1) That physicians' services should be provided individually or through contractual relationships with groups of Iowa physicians, either professional physician corporations or partnerships and not have physicians as employees of the HMO;

2) That the authority to establish an HMO should be held jointly by the Iowa Insurance Commissioner and the Iowa Health Commissioner

with each acting on those provisions which fall within his province; and

3) That enrollees should have the option of becoming members of an HMO or have health care coverage available in some alternate manner.

The rest of this discussion will offer reasons why the Medical Society is a particularly strong proponent of the first principle. This provision is regarded as crucial by the Society, and it is advanced in the belief its presence will in no way jeopardize the opportunity for Iowa to experiment with the HMO concept, or even adopt it broadly. In fact, Society explorations show this approach to be the one operating in most, if not all, of the locales where HMO's are now functioning.

OPPOSE HIRING PHYSICIANS

To rephrase point one in even more understandable terms, *the Iowa Medical Society believes that enabling legislation should not permit HMO's to hire M.D.'s and sell their services to the public.* The Society thinks there are good and valid reasons for taking this position, reasons which are definitely *In the Public Interest.* And the Society has shared and is happy to share these reasons with the Legislative Study Committee and other groups with an interest in HMO legislation.

Why does the Society believe so strongly in the preservation of this principle?

To answer again in simple, straightforward words: Because in the broad analysis the direct hiring of a physician on a salary could jeopardize the patient-physician relationship and could pose a serious threat to the quality of medical care.

In Iowa there is a special legal instrument known as the "corporate practice rule." The preservation of this instrument figures strongly in Society thinking regarding HMO legislation. This ruling is not in the Iowa Code but it is a judicial promulgation which appears in the Iowa Supreme Court decisions. The essence of the rule is that corporations and lay organizations cannot "practice" the "learned professions" such as medicine, law, dentistry, etc. Under this ruling, corporations may employ physicians, lawyers, etc., to render services to the corporation but they cannot employ them to render services for the benefit of the public. If HMO's are authorized to hire physicians on salary a new exception to the "corporate practice rule" would be created which poses a threat to this important and long-standing public and professional safeguard.

Bearing further on this subject, in Section 135.19-32 of the Iowa Code, there is clarification as to the manner in which hospitals and physicians shall relate to one another. This statute, often referred to as House File 21, discusses "pathology and radiology services in hospitals" and specifically precludes hospitals and physicians from entering into contracts of employment. It allows the involved parties to enter into other types of contractual arrangements which are mutually acceptable. A similar course is viewed by the Society as appropriate to the structuring of the HMO.

UNNECESSARY COMPLICATION

The passage of HMO enabling legislation to include a salaried physician provision would snarl or most assuredly complicate the picture, and unnecessarily. For example, a pathologist or radiologist in a hospital operated by an HMO could be employed on a salary whereas in other hospitals HF 21 would still apply and no such employment contract would be legal.

The Iowa Medical Society fears the ultimate consequences of any arrangement which permits HMO's to employ physicians on a salary. Such action would in time negate the physician's role as captain of the health care team and cause the direction of the practice of medicine to be assumed by lay individuals. This would result in a deterioration of the quality of medical care; it would threaten the physician-patient relationship, and it would jeopardize the efficiency, incentive and motivation of physicians—all of these to the detriment of the public.

The "corporate practice rule" is for the benefit of the public, not just physicians, lawyers, dentists, etc. To preclude corporations and laymen from "practicing medicine" by employing physicians is sound public policy and promotes better patient care. If the physician is employed on a salary his first allegiance is apt to be given to his employer rather than the patient. Even though the employer may start out on an "enlightened course" of giving complete professional freedom to the physician-employee, if it becomes necessary to cut costs there will be a temptation to install measures which may limit the professional freedom of the physician to practice medicine the way he thinks best.

UNNECESSARY & UNWISE

HMO's do not need a salary provision, such as the one considered by the 1972 General Assembly. Without such a provision HMO's can contract with physicians in a variety of ways which are mutually satisfactory and this, in fact, is the prevailing practice. For instance, a Harvard Law Review study states that "among physician groups which affiliate with prepaid group practice plans offering comprehensive care [HMO's] the partnership [not the salary] is almost exclusively the organizational vehicle." It would be unwise to create a special exception for HMO's that has not been found necessary for them or other Iowa corporations.

Authorizing HMO's to hire treating physicians is regarded by the Society as an initial step toward abandonment of the entire "corporate practice rule," which has stood the test of time and which now serves as an important safeguard for the public and the "learned professions."

If HMO's are to succeed in Iowa they must have physician support, understanding and participation. The Society's main intention in the coming months will be to secure passage of a good enabling act which will permit HMO's to prove their merit under optimum circumstances.

Medical Assistants

by TENORA MEYER, CMA

FLIGHT TO THE FUTURE

WESTWARD HO! ALL MEDICAL ASSISTANTS. Phoenix, Arizona, is the site of the 16th Annual Convention of Medical Assistants. It will be October 17-21 at the Towne House.

A particularly interesting medical-legal lesson will be presented Friday, October 20. A full professional cast will participate in a mock trial. The case concerns a patient in her ninth month of pregnancy and a medical assistant in an obstetrician's office whose doctor-employer is away on an emergency call. The medical assistant has seen the physician dispense a professional sample of medication to the patient several times. However, she does not know the drug is contraindicated in the ninth month of pregnancy. As a result of the drug administration, the child is born with a defect. The cast will include an AAMA member, Dee Stratton; the patient-plaintiff and a former nurse anesthetist, Ruth E. Nolling; Judge Phillip Marquardt of Maricopa County Superior Court; Merton E. Marks, defense attorney; James W. Hill, plaintiff's attorney, and Robert Tamis, M.D., expert witness for the defense. Dr. Tamis is a Phoenix obstetrician and gynecologist. The script was written and produced by Attorney Marks.

Another interesting feature will be a discussion on "Acupuncture." William A. McGarey, M.D., a general practitioner in Phoenix, will discuss "Acupuncture and Body Energy" on October 19. He will consider the application of acupuncture in medical practice. Dr. McGarey has authored papers on the psychedelic drugs, on the use of castor oil packs in the practice of medicine, on healing around the world and several on acupuncture and body energies.

On October 19 a panel designated "Flight to the Future" will be presented. Participants will include David G. Welton, M.D., Charlotte, N. C., Member, AAMA Certifying Board; Homer Kempfer, Ed.D., Professor of Education, Virginia Polytechnic Institute, Blacksburg and Reston, Va.; John J. Fauser, Ph.D., Assistant Director, AMA Department of Allied Medical Professions and Services, Chicago; Donald Foy, Director, AMA Department of Health Manpower, Chicago; Glen Tiffin, M.D., Bountiful, Utah, Member, AAMA Physician-Advisory Board, and LeRoy Wm. Nattress, Jr., President, Natresources Inc., Chicago.

An October 19 luncheon will honor C. A. Hoffman, M.D., President of the American Medical Association.

Special interest sessions will be held October 19 on dermatology, rheumatology, pulmonary-respiratory, anesthesiology, neurology, cardiology, endocrinology and metabolic diseases.

Topics to be discussed on October 20 include "The Medical Assistant in the Community," presented by the Community Organization for Drug Abuse Control; and simultaneous sessions on "Information and Management—Your Key to the Future," and "The Clinical Assistant in Physical Therapy." The mini-test will be given and there will be a clinic on certification.

Various tours are planned for those combining education and vacation. Pre-convention tours include Scottsdale Spree I on October 14, Scottsdale Spree II on October 16, and an October 15 tour to Tucson and Nogales, Mexico. There is a Valley of the Sun Tour, C-1, October 15 and a Valley of the Sun Tour, C-2, October 16. An Arizona Cowboy-Style Desert Sunset tour and dinner will occur Monday, October 16.

Post-convention tours are scheduled for the Grand Canyon (an overnight tour departing October 21) and a combination tour of the Grand Canyon and Las Vegas (from October 22 to October 25).

There is a package registration fee of $60 which includes the AMA President's Luncheon, the Chuckwagon Chow at the Longbranch, Awards Luncheon, Inaugural Banquet, Sat. a.m. breakfast, and the registration fees covering all educational sessions. Various other payment options are available.

For more convention information, please write American Association of Medical Assistants, One East Wacker Drive, Suite 1510, Chicago, Illinois 60601.

This page is prepared for and by the Iowa Chapter, American Association of Medical Assistants. Material is compiled by Mrs. Tenora Meyer, CMA.

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Librium (chlordiazepoxide HCl) is used as adjunctive antianxiety therapy concomitantly with certain specific medications of other classes of drugs, such as cardiac glycosides, antihypertensive agents, diuretics, anticholinergics and antacids.

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Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

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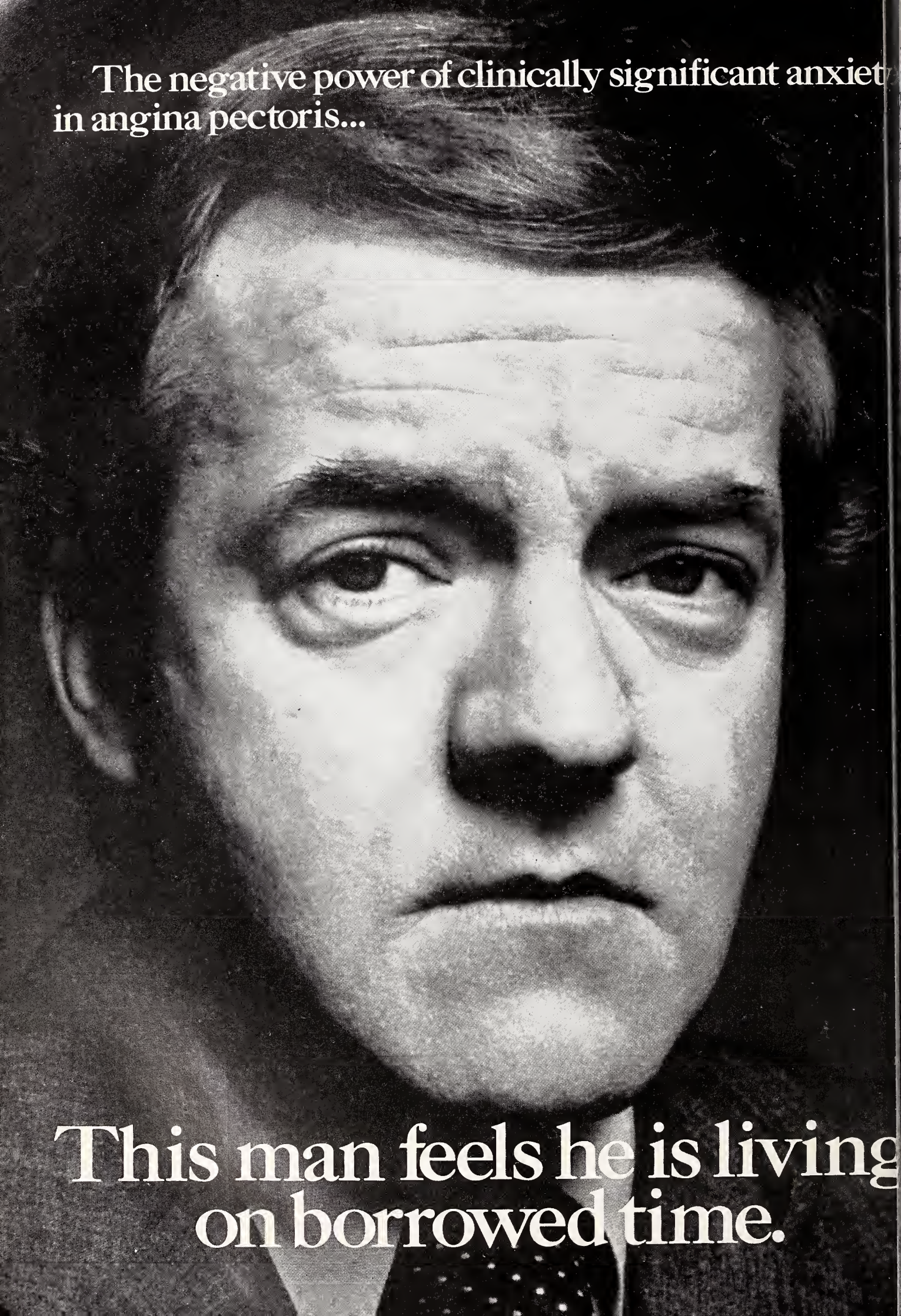
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Additional information available to the profession on request.

- Honors to Dr. Flocks — Page 571
- Oxygen Toxicity — Page 583
- Community Clinical Conferences — Page 606A

NOVEMBER 1972


The negative power of clinically significant anxiet
in angina pectoris...
This man feels he is living
on borrowed time.

During anginal attacks, patients may suffer intense apprehension. More frequently, however, they experience a continuing sense of less severe but nonetheless disproportionate anxiety.

Reduction of such clinically significant anxiety is important, since undue emotional stress may precipitate further anginal episodes.

djunctive Librium (chlordiazepoxide HCl) may be pecially suitable for relief of clinically significant nxiety and emotional tension in anginal patients ecause of its generally prompt therapeutic effectiveess and wide margin of safety. In a recent double-blind andomized study,* Librium (chlordiazepoxide HCl) as administered for relief of moderate anxiety in 20 nginal patients seen in office practice over a 20-week eriod. Symptoms of emotional distress related to nxiety were rated at base-line, one week, two weeks nd monthly thereafter. Relief was obtained notably rly in therapy. The clinical results demonstrated that ibrium offers the coronary patient an antianxiety drug at, in the author's opinion, is both effective and safe. general use, the most common side effects reported ave been drowsiness, ataxia and confusion, articularly in the elderly and debilitated. (See mmary of prescribing information.)

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The positive power of adjunctive Librium® (chlordiazepoxide HCl)

10-mg, 25-mg capsules up to 100 mg daily

for moderate to severe anxiety ccompanying angina pectoris

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Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established.clinically.

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*Levine, S.: "Angina Pectoris and Emotional Overlay," Scientific Exhibit presented at the Annual Meeting of the Maine Medical Association, Kennebunkport, Me., June 13-15, 1971.

A copy of the Levine study may be obtained from your Roche representative.

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President's Page



May I use these November comments to re-emphasize the unique and refreshing plans for the 1973 IMS Scientific Sessions. Our 1973 Bahamian continuing education experience is worthy of your serious consideration.

The particulars have been circulated. Briefly again, the dates are March 29-April 2; the location is the Paradise Island Hotel in Nassau; the cost is $240 per person for travel and accommodations (European Plan).

Scientific programs will be from 8 a.m. to noon with afternoons open. Outstanding physician speakers from Georgia, Ohio, Michigan, Nebraska, Colorado, Texas, Louisiana and Iowa will participate in lectures, panels, round-tables, etc. The program is diversified and down-to-earth.

We have approximately 200 reservations in hand now. There's still room for more. Registration forms are available from IMS Headquarters. Drop a note or call. Shake off the winter doldrums in the Bahamas.

K. E. Lister, MD.

K. E. Lister, President

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IOWA Medical Miscellany

PHYSICIAN'S ASSISTANTS . . . The first 10 students to be trained in Iowa as physician's assistants are now attending classes at The University of Iowa College of Medicine. According to College officials, the two-year program is designed to train persons to do certain tasks traditionally performed by the physician to allow his practice to operate more efficiently, effectively and economically. A. W. Horsley, M.D., assistant dean for allied health programs, is the medical director. T. D. Aschenbrener, a graduate of the Duke University program, is the executive director. The students will spend at least eight weeks in a rural family practice preceptorship. All of the students are Iowans and have had a variety of previous practical experience in health care settings. Program is financed in part through a $125,000 contract with Bureau of Health Manpower Education of the National Institutes of Health.

McFARLAND CLINIC CITED . . . The McFarland Clinic in Ames is one of 37 clinics to receive certificates of accreditation at the September annual meeting of the American Association of Medical Clinics. A clinic must satisfactorily pass an extensive evaluation to earn the certification. Seventy clinics in the country have received the AAMC citation.

PROFESSIONAL LIABILITY . . . The IMS Board of Trustees has authorized the Medico-Legal Committee to use outside professional counsel in its evaluation of the professional liability insurance situation in Iowa. This approach was initially approved by the 1972 House of Delegates. Drake University Professor James Chastain is scheduled to share his expertise with the Committee Nov. 8.

RECORD MEMBERSHIP . . . Iowa physicians have established new membership records this year in both IMPAC and AMPAC. Iowa is one of 15 states to achieve an all-time high in number of AMPAC contributors.

APPOINTED . . . Norman K. Rinderknecht, M.D., Des Moines, has been nominated to represent the IMS on a new Uterine Cancer Task Force Advisory Committee of the American Cancer Society, Iowa Division.

CONTINUE LIAISON . . . The Society's Board of Trustees has urged the Committee on Delegation of Authority to maintain its liaison with the Iowa Nurses' Association and the Iowa Board of Nursing. Two recent meetings of these groups have occurred.

CONTINUING EDUCATION . . . Efforts of the IMS Committee on Medical Education and Hospitals in the area of continuing education were reported to the Executive Council October 26. The committee is seeking an effective means of determining how Iowa physicians are now involved in continuing medical education.

EMERGENCY MEDICAL SERVICES . . . Under review by the Society at this time is a project proposal which has been developed by the Statewide Advisory Committee on Emergency Services; the proposal seeks to classify the various emergency services.

FARM BUREAU . . . The Society's Board of Trustees met in late September with officers of the Iowa Farm Bureau to discuss matters of mutual interest (HMO's, medical manpower, cost of care, etc.).

CHARGE REMINDER . . . IMS members are reminded and urged to list usual charges on all Medicare claims, not known allowed payments. This reminder is issued in the wake of a recent Medicare ruling that allowances for injections are to be based on $2 per injection, plus an amount to cover the cost of the drug.

PHYSICIAN PLACEMENT . . . The IMS Physician Placement Service is cooperating with the College of Medicine in an exhibit project at University Hospitals which will give medical students in display form some impression of the various Iowa communities which are seeking practitioners.

APPROVE ANTHON . . . Endorsement has been given by the Woodbury Medical Society and the Iowa Medical Society to application of Anthon, Iowa, to the National Health Service Corps. Anthon is seeking two physicians and a dentist under this program.

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THE JOURNAL OF THE IOWA MEDICAL SOCIETY

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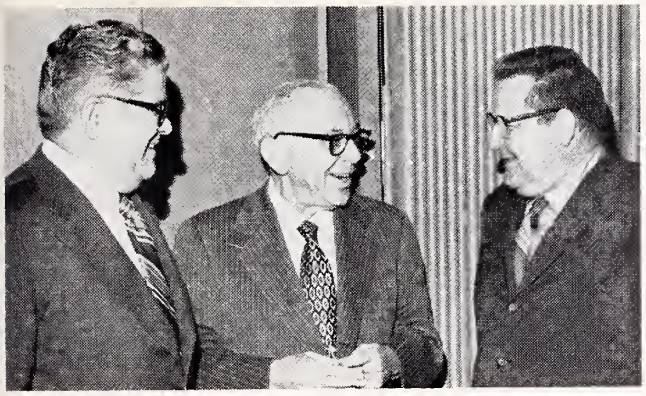
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FESTIVE OCCASION (Left) . . . September 15 honor to Rubin Flocks, M.D., professor and head of The U. of I. Urology Department, was attended by John Eckstein, M.D., left, Dean, College of Medicine, and Robert Hardin, M.D., right, Vice Provost for Health Affairs. They greet Dr. Flocks here. PORTRAIT UNVEILED (Right) . . . Tribute to Dr. Flocks included unveiling of a portrait for the new R. H. Flocks Prostatic Disease Center. Shown are portrait, subject and artist, Mrs. Cloy Kent, Iowa City.

Recognition Accorded IMS President-Elect

Fitting accolades were invested upon Rubin H. Flocks, M.D., at a September 15 banquet given in his honor in Iowa City. The banquet was the high point of a two-day Symposium on Genito-Urinary Cancer.

Participating in the tribute to Dr. Flocks were several hundred former students, fellow faculty members, and other friends. Several of the nation's leading urologists were present.

On the following pages are the banquet comments of Hugh J. Jewett, M.D., U. of I. President Willard L. Boyd and Dr. Flocks.

Dr. Flocks has been professor and head of the Department of Urology at The University of Iowa College of Medicine since 1949. He has been associated with the University since 1931. He is a past-president of the American Urological Association, the Clinical Society of Genito-Urinary Surgeons and the American Society of University Urologists. He is now president-elect of the Iowa Medical Society.

Speakers at the banquet included Hugh J. Jewett, professor of urology at Johns Hopkins University; Willoughby Kittredge, M.D., chief consultant in urology at the Ochsner Clinic, New Orleans, and president of the American Urological Association; Willard L. Boyd, president of The University of Iowa, and David Culp, M.D., professor and vice-chairman of The U. of I. Department of Urology.

Symposium speakers included Ormond Culp, M.D., head of urology at the Mayo Clinic; John Grayhack, M.D., professor and chairman of urology at Northwestern University; William Valk, head of urology at the University of Kansas, and Anthony Walsh, M.D., professor of urology at the University of Dublin, Ireland.

A portrait of Dr. Flocks, painted by Iowa City artist Cloy Kent, was presented to the University by Dr. Culp and accepted by President Boyd.





TOP MEN (left) . . . Top urologists at recent program for Dr. Flocks included, standing, Drs. Ormond Culp, head of urology, Mayo Clinic, and John Grayhack, chairman of urology, Northwestern; sitting left, William Valk, head of urology, University of Kansas; and Anthony Walsh, professor of urology, University of Dublin. PRESENTATION (right) . . . Joseph Schmidt, M.D., associate professor of urology, gives $8,265 check to Dr. Flocks as a gift from his students. Money is to be used in the new R. H. Flocks Prostatic Disease Center.

Rubin H. Flocks and the Prostatic Disease Center

HUGH J. JEWETT, M.D.
Baltimore, Maryland

We are gathered here tonight to recognize another milestone in the progress of American urology. You are all familiar with other forward leaps during the past 70 years which have made our specialty what it is. But this new area, made possible by the generosity of patients and friends, and by the benevolence of a grateful hospital and university, represents a unique event in the history of urology. It is only natural that it should bear the name in perpetuity of Rubin Flocks.

Now what manner of man is this whose achievements are today crowned with this signal honor? This question can best be answered by tracing with you certain aspects of his growth, development, maturation, and accomplishments that have earned for him his position of eminence.

My earliest recollection of Rubin Flocks was in the fall of 1923 when he entered the sophomore class at the Johns Hopkins University, having skipped the freshman year. He was unassuming, non-aggressive, courteous, but supremely self-confident. He believed students were in college solely to get an education, and to absorb as much intellectual nourishment from their courses as possible. Frivolity was for the frivolous. And that is why some of us in our immature years saw so little of him. But Rubin Flocks had a definite goal and a superior mind, and never swerved from his objective. One day two straight A students were holding a post mortem after a physics examination which consisted of 10 questions. One said, "I got 8." The other bragged, "I got 8.5." A third approached with the disturbing news they didn't have a chance; Flocks had got them all. And this was his record in course after course, in year after year. At the time of graduation, the faculty, confronted by his perfect score, asked themselves if the pre-medical course was really meeting the rigorous standards the school of medicine had set. When they found that many average students who had hoped for a career in medicine had fallen by the wayside, they concluded that all was well in Academe, and that they had simply been exposed to a genetic phenomenon.

In the Johns Hopkins School of Medicine the story was the same. He cruised effortlessly through four years, grasping and retaining stupendous amounts of information. I thought at the time he might desert clinical medicine and devote his future to research, because physics had seemed to be his first love. But upon graduation he selected orthopedics, probably because of its pre-occupation with forces and motion, stresses and strains.

ORTHOPEDICS TO UROLOGY

In 1930, as many of you may recall, cases of suppurating osteomyelitis were treated nearly everywhere with live maggots. These ubiquitous little creatures were applied to the open wounds and secured there by wire screens. They, however, had a faculty for escaping their confinement and appearing in the cuffs of internes' trousers, or even in the pockets. This was a fact of orthopedic life 40 years ago, and proved too much for Rubin Flocks' more delicate sensibilities. He then looked around for greener pastures. Urology seemed green enough, but the lines of succession in the Brady Institute had already been established, because he had previously removed himself by his brief excursion into another field. When the golden

This paper was presented at a banquet in honor of Rubin H. Flocks, M.D., on September 15, 1972 in Iowa City. Dr. Jewett was a college classmate of Dr. Flocks. He is now a professor of urology at Johns Hopkins University and editor of the JOURNAL OF UROLOGY.

opportunity came from this University he seized it with alacrity, and his choice proved wise.

However, urology at that time was scarcely more fragrant than was orthopedics. But soon the advent of the antibacterials cleansed our specialty of many of its offensive impurities and paved the way for its inevitable ascent to its present dignified and respected position in the world of surgery.

DISTINGUISHED PREDECESSOR

Here in this great University Rubin Flocks came under the tutelage and guidance of that nationally prominent urological surgeon, teacher, enterpreneur, and transurethral artist, Nathaniel G. Alcock. Flowering in the warmth of his professor's friendship and encouragement, Doctor Flocks was able to give free play to his enormous talents. His comprehension, imagination, creativity, and restless energy, combined with tenacity and technical skill, enabled him to see many problems that existed, to understand what was required to solve them, and then to finish the job. Nowhere among his numerous publications can one sense an underlying purpose of self-aggrandizement. All of his scientific contributions have been made with the desire to help others out of their difficulties, to increase the sum of urological knowledge useful to medical practitioners everywhere, and to elevate the stature of our specialty in the medical world and in the eyes of the public.

The caliber of his inquiring scientific mind was re-emphasized in 1939, early in his urological career, by his laboratory studies on calcium excretion in patients with calcium stones. He proved most of these patients had a markedly elevated 24-hour calcium output even when the serum calcium was normal. Although he had no explanation for the cause of the hypercalcinuria in the presence of normal serum calcium, and no plans for its reduction, his original observations were a landmark for they increased our understanding of the etiological mosaic of this baffling disease. His measurements have become in most centers a routine part of the investigation of all patients with urinary stones.

Two and a half years before this significant contribution he published a beautiful treatise on the distribution of arteries within the prostate gland. This anatomical study showed not only where the arteries were, so that bleeding could be more readily controlled by the resectionist, but also, in a series of striking photographs of postoperative specimens, demonstrated what the prostatic fossa looked like after a complete and clean resection. This was a subtle but not unnoticed challenge that the operation could be done better at the University of Iowa, and no one accepted the challenge.

His absorption with the prostate gland and the management of its abnormalities soon led him to a frontal attack on prostatic cancer. Much earlier, distinguished urologists had demonstrated the inefficacy of external radiation with the conventional units then in use. Furthermore, radium needles implanted locally through a perineal incision had accomplished little and had caused troublesome complications. After World War II, when radioactive isotopes were made available, Dr. Flocks, with the invaluable help of the Professor of Radiology, Dr. Dabney Kerr, solicited and obtained the cooperation of authorities at Oak Ridge, and began his long quest for the cure or control of locally advanced but non-metastatic prostatic cancer. It was this group especially, without distant dissemination, but far too advanced for radical excision alone, that attracted his attention. With radioactive gold, obtained from Oak Ridge under a special contract, and administered cautiously and expertly in the correct dosage, he was able to offer dramatic and lasting relief to many patients for whom nothing else would suffice. It was a lonely struggle. Many voices were raised in criticism, if not in actual horror. But Rubin Flocks was again self-confident. He knew the dangers of overradiation and the need for uniform diffusion. He also knew when the locally advanced tumor had extended beyond the reach of his gold. However, his skillful surgical technique enabled him to surmount most obstacles, and, despite the many imponderables that still exist, the record of his cases, carefully classified and treated according to his individual concept, stands today unequaled in urological annals.

ORIGINAL CONTRIBUTIONS

It would be superfluous for me to list the vast number of original contributions Rubin Flocks has made to the literature. I am sure you are familiar with practically all of them. But I hasten to mention, in passing, the useful

volume he published with David Culp on surgical urology. As you are well aware, no time has been wasted in this progressive, highly organized, and active Department of Urology, which has made its influence felt, not only in Iowa, but throughout the land.

POSITION OF UROLOGY

While maintaining an intense interest in clinical and investigative urology, and in undergraduate and graduate teaching in his own department, Rubin Flocks has given much thought and time to the position American urology should occupy in the whole fabric of organized medicine. Commencing with the American Board of Urology and the Residency Review Committee, and moving on to important positions within the American Medical Association and College of Surgeons, he has become involved more or less directly with certain operations of the National Academy of Sciences and the National Institutes of Health. He played a distinguished role in the American Urological Association and was elected its president in 1968. His genius for analysis and projection and his passion for organization have propelled him into some of the highest councils of American medicine. All of these exhausting activities were undertaken because of a constant dedication to an ideal: to make urology prestigious in American medicine, to cultivate research on a wide scale and upgrade undergraduate teaching and graduate training everywhere, and to make possible the delivery of competent urological care to all in need.

Rubin Flocks has embodied all of the virtues and none of the defects of a highly motivated personality. He has never wished to impose his will, but merely to develop a mechanism through which concerned persons in and out of government can communicate and exert cooperative leadership. This is democracy functioning at close to its highest level. I doubt whether anybody, living or dead, could give much instruction to Rubin Flocks and his department on the conduct of urological affairs.

In recognition of his many achievements, urological societies have presented him with almost all the awards available to a urologist. These, however, are inanimate objects which

(Please turn to page 575)

Accepting Dr. Flocks' Portrait

WILLARD L. BOYD
Iowa City

APPRECIATION OF RUBIN FLOCKS pervades the entire University of Iowa.

When one looks at the record of accomplishment compiled thus far by Dr. Flocks, the first thought is that it must be the work of several, not just one person.

Dr. Flocks is known for excellence in teaching, in research, and in medical skill. We in Iowa are privileged, and grateful, to know him also for his devotion to the College of Medicine in ways that benefit the College and the University as well. He has been a sturdy counselor and administrator in times when the College was without a dean. The count has been lost of the times he has served on the Medical College Executive Committee, and for many years he has been a member of the Medical Council as head of urology. Dr. Flocks has an abiding interest in the excellence of the College and the University.

His students name him Teacher of the Year. They respect him, for they know he expects their best.

Hundreds of physicians know his careful follow-up with them on the progress of patients they have referred to him. The respect and gratitude of former patients abounds.

The University of Iowa is proud of Dr. Flocks. But what is more, he is proud of us. Iowa—Dr. Flocks said in his thirty-seventh year here—is the hub of the United States, a wonderful place to live. He has helped make it so.

On behalf of the University, and in no way influenced by the presence here of both the subject and the artist, I am *delighted* to accept this portrait.

University of Iowa President Willard Boyd offered these brief comments in accepting the portrait of Dr. Flocks for the University.

he can hang on his wall or stand on his desk. But this Rubin H. Flocks Prostatic Disease Center, erected in his honor and dedicated to him is vastly different. It has the opportunity to become a living, breathing, functioning, organism.

It is most appropriate for this center to be constructed at the University of Iowa, where for well over 50 years, much expert attention has been devoted to the prostate gland. Dr. Flocks and his department are inheritors of a great tradition, which grew to maturity and national prominence under Doctor Alcock. This pioneer was astute and imaginative. In addition he had superb technical skill, and through dogged determination was able to attract worldwide recognition for his accomplishments in transurethral surgery. At that time he had no equal, and one wonders what the status of transurethral resection would be today if Dr. Alcock had not first shown the way. The men he trained have been his ornaments, and Dr. Flocks, who has enhanced the tradition, has become a very special one.

VALUABLE CENTER

The Prostatic Disease Center is small, and I hope it remains so. In an age of conglomerates, with emphasis everywhere on largeness, mediocrity becomes increasingly difficult to avoid. Therefore, I hope this Center will continue to be compact, selective, imaginative, and creative with dedication to the solution of basic problems in our field. For instance, what causes prostatic hyperplasia? Why does it differ in man from that in sub-human primates? How can it be controlled in the beginning? How do bacteria in the lower bowel reach the prostate? Once there, how can they be destroyed? Is it really important for antibiotics in the prostatic stroma to cross the basement membrane? What is the effect of hyperplasia on persisting infection? When should hyperplastic tissue be removed for prostatitis in the intact gland if it does not obstruct? Why is the incidence of carcinoma so much higher in the ninth decade? What is the meaning of biological potential, and how can it be identified before treatment? Is it true that in prostatic cancer the tumor is a heterogeneous collection of cells? If so, is it true that an unpredictable percentage of these cells is hormone dependent and this percentage varies even with tumors that are histologically identical? If this is true, does it not tell us why antiandrogenic treatment produces such a variable response in tumors that are histologically alike? If so, does it not tell us that the genetic factor really governs hormonal response, and that we have gone about as far as we can with antiandrogenic treatment? It takes a prepared mind with a natural talent for questioning, discriminating, imagining, and creating to perceive the winding down of a tradition, and the pathway that may lead to another.

In addition to the focusing of attention upon basic and unresolved problems, the Center may provide an opportunity for students, trainees, and practicing physicians, to study under competent guidance the diagnosis and treatment of all kinds of prostate disease. These conditions, often unrecognized, are quite prevalent in the general male population.

A Center such as this however will remain only a physical facility unless it is occupied by talented people. It then can become superb, locally, nationally, internationally. Excellence depends on the recognition of right objectives, and demands the selection of the greatest available minds regardless of geographic distribution. This may sound disloyal or undemocratic, but it really isn't. An Olympic team is not organized on the basis of anything but the best quality.

BENEFIT IN STORE

The men of Iowa can expect much benefit in time from the output of this Center. But I hope this benefit will extend far beyond Iowa throughout the world. Much will depend on who works here in this unique setting with such excellent facilities. There will be competition from other centers of learning and their laboratories, but this should provide healthy stimulation and challenge without which there may be no growth. This historic Center, constructed for the investigation and treatment of a group of man's commonest ills, can be expected under enlightened leadership to forge ahead in new directions.

This great University has undertaken to honor Rubin Flocks, and in so doing has indeed honored itself. Rubin Flocks, whose name is enshrined forever in this enduring monument, is now witnessing not only the perpetuation of a great tradition, but also possibly the beginning of another. This is a fitting tribute to an extraordinary man.

A Word of Thanks

RUBIN H. FLOCKS, M.D.
Iowa City

First I want to thank everyone for this wonderful evening. I appreciate very much the effort Dave Culp put in getting all of this arranged. He has done a tremendous job in creating a productive educational experience for every one during the day and, of course, tomorrow morning, and also arranging for this evening. The guest faculty has done a magnificent job.

I am immensely grateful to Hugh Jewett for giving his address. We have worked together for over 47 years, and it has been a constant inspiration and stimulation to me to see the thoroughness of his work, the originality and the urge toward excellence in everything he has done. He is one of the outstanding urologists of our time.

I want to thank Dr. Kittredge for his remarks this evening. As president of the American Urological Association, he has many demands on his time.

I want to thank the president of the University for his kind remarks and for his assistance in helping us create an outstanding department. It was a pleasure to sit for the portrait President Boyd has accepted for the University. Cloy Kent did me more than justice. I wish to thank those who made it possible.

Two underlying fundamental principles have guided our urologic team here at The University of Iowa. The first was called by Dr. Alcock, "the philosophy of the open door." He felt the Department of Urology was an integral part of the organization for the delivery of urologic care to the entire community of Iowa. He was open for consultation with any urologists or other medical practitioner in the State at any time. Whenever a patient was referred to the Department of Urology, information was forwarded immediately to the referring physician. He was kept informed continuously so he could treat the patient intelligently and successfully and learn from the situation after the patient returned to his care. Alcock felt obligated to teach Iowa practitioners all that was new in urology, thus education in urology was not limited simply to the medical student and the resident, but was extended to all the Iowa physicians, particularly the urologists. He felt, and it has been my feeling also, the Department should provide the best possible urologic care to the people of Iowa and organize the urologists in the state to use the department efficiently to achieve this goal. In this effort I have had the support of the Iowa physicians and all the members of my staff. In a sense we have been and are carrying out graduate and continuing education in urology throughout the state.

The main mission of the Prostatic Disease Center being created with funds from all our friends, many of whom are here tonight, and particularly the Krannert Foundation, is to maintain and enhance this educational process for the people of Iowa and the entire country. It is hoped the auditorium will be useful in this respect. The educational center, with programs devised by the Department under the direction of Dr. Culp, will be useful in the continuing education of the physicians, particularly the urologists in the State, in addition to the residents and medical students at the University Hospitals.

At the same time, the research laboratories will study prostatic disease and advance our basic and clinical knowledge of these diseases. Prostatic disease is very prevalent in Iowa. Approximately 6,000 prostatic operations are performed annually and it is estimated there are approximately 30,000 patients with prostatic cancer in this state alone and possibly

These remarks of gratitude were presented by Rubin H. Flocks, M.D., professor and head of the Department of Urology at The U. of I. College of Medicine September 15, 1972 at the banquet presented in his honor.

100,000 potential candidates for benign prostatic operative procedures.

A CENTRAL POINT

To enhance the open door principle, the principle of being a part of a state-wide organization to deliver urologic care, it is necessary to search for the weak points and strengthen them. This is the reason for the Prostatic Disease Center. Likewise, other facets of urologic disease such as pediatric urology, urological oncology, urological endocrinology, require a central point where investigation and tertiary care of patients will improve the overall delivery of urologic care.

Urologic endrocrinology has been extremely active here under the leadership of Dr. Raymond G. Bunge. Under his expert guidance, many basic developments have emanated from this institution. The delivery of care to male patients with problems in human reproduction has attracted worldwide attention.

So we have in the last 25 years fulfilled and expanded Dr. Alcock's precept. We have identified those areas which need expansion and improvement and we have directed the thrust of the Department of Urology at The University of Iowa at these areas. We have done this in prostatic disease, urological oncology, pediatric urology, urological endocrinology, and during the past three years under the leadership of Dr. William Bonney, in cooperation with the Departments of Medicine and Surgery, and with the tremendous help of the administration, both of the Medical School and the Veterans Administration Hospital, we have developed an excellent Renal Transplantation Service.

The second principle I have tried to inculcate in our team here and in my students, both undergraduate and graduate, is something which I really learned first at the Johns Hopkins Undergraduate School. It was further "drummed" into me at the Medical School. Dr. Hugh Jewett was part of this. This is the philosophy that things are continuously changing and in order to adapt to these changes successfully, a broad education, a broad background is essential. For this reason I have persuaded my colleagues and my residents not to shorten our training program, but in a sense to diversify it more, so the background, the underlying education of our graduates will help them respond to the changes which are bound to occur in their surroundings. This philosophy stimulated Dr. Alcock to develop transurethral resection. This outlook made it possible for us to utilize radioactive isotopes and demonstrate that radiation therapy could be utilized satisfactorily as part of the armamentarium in the management of prostatic cancer. This philosophy permitted us to employ the antireflux operations in children, after Dr. John Hutch, a graduate of this institution, first demonstrated its usefulness in adults. The first antireflux operations in children were done here by Hutch, Bunge and Culp in 1951.

It was this philosophy that prompted us to carry out an extended radical type of prostatectomy, both perineally and retropubically, and utilize flap operations for the control of incontinence. It was this philosophy that stimulated Dr. Bunge to develop many of the new concepts with regard to fertility, infertility, and problems of intersexuality. This flexible, adaptable philosophy, a philosophy antagonistic to the "cookbook" approach to medicine, is the foundation for the significant advances in medicine. It must not be stultified by some of the developments which are occurring in organized medicine and medical education today.

PART OF THE TOTAL

And so I want to say again the Department of Urology, while part of the University Hospitals and College of Medicine complex, is also part of the total medical care delivery system in this state. Its function is to provide tertiary care and to stimulate, direct and help in supplying the undergraduate, graduate and continuing education programs for the medical profession in Iowa. This effort must be flexible enough to respond to newer developments and to changes that will occur. Flexibility, adaptability and the creation of an atmosphere of excellence are the bases for medical excellence.

I want to thank all of my colleagues who are here today from Iowa City, from the University, and from the State. I particularly thank the members of the Iowa Urological Society and people like John Colloton, Mr. Hartman, Dean Eckstein, President Boyd, Dave Culp, John Greenleaf, and my administrative assistant, Mrs. Bloodhart, for their constructive, continuous and unflagging help in developing and maintaining the organization we have outlined.

With many thanks.

IOWA MEDICAL MISCELLANY

(Continued from page 569)

NEW PROGRAM . . . New Ph.D. program in physical education especially for physical therapists has been started this fall at The University of Iowa. The program is a joint effort of the College of Medicine and the Department of Physical Education. It is supported by a five-year $271,935 grant from the National Institutes of Health. Three students are enrolled now; a maximum of six will be involved by 1974.

INCREASE . . . Medicare "deductible" paid by elderly beneficiaries for hospital care will increase to $72 a year from the current $68 as of January 1. Except for limitations of the economic stabilization program, the amount has been $76 in accordance with the Medicare law.

SHARP INCREASE . . . Twenty-four June graduates of The U. of I. College of Medicine are now serving internships in Iowa. Thirteen are at University Hospitals and 11 are at Broadlawns Polk County Hospital in Des Moines. This figure is up from 8 in 1970 and 19 in 1971. California, with 27, received the largest influx of Iowa's June medical graduates. The number of medical degrees awarded by The U. of I. has jumped from 105 in 1970 to 123 in 1971 to 147 this year.

FEES . . . Physicians' fees rose only 2.29% during the first full year's experience under the Economic Stabilization Program, according to the Bureau of Labor Statistics. This is in sharp contrast to the 7.01% increase between August, 1970, and August, 1971. Iowa physicians with questions or special problems on the freeze may call a special AMA number for assistance. Call AMA Center for Health Services Research and Development (312) 527-1571, Ext. 434, and ask for Robert Walsh.

RETIRES . . . Mrs. Marion Samo has retired after long and distinguished service as librarian at the State Medical Library.

NEW BOOK . . . THE CASE FOR AMERICAN MEDICINE is a new book by Harry Schwartz of the NEW YORK TIMES editorial board. The book is said to take "a realistic look at our health care system and the utopian alternatives."

OPT OUT . . . State Department of Social Services reports at least 26 licensed nursing homes have elected not to participate in the soon-to-be-implemented revised payment plan for nursing home care. Public assistance recipients in those homes opting out of the new plan must be located in other nursing homes which are participating.

MEDICAID DISPENSING . . . Recent updating of Iowa Medicaid operative guidelines calls for physicians to prescribe a quantity of medication sufficient for at least 30 days when this length of treatment is anticipated, unless it is therapeutically contraindicated. Maintenance drugs in 10 areas may be prescribed in 90-day quantities when prolonged therapy is involved. Also, the State Department of Social Services re-emphasizes in new directional material that physicians use Form XIX (SCR-2) in billing for screening examinations for all children under age six in ADC families. The regular Title XIX Physician's Monthly Statement is not to be used.

NEW PROGRAM . . . Soon to begin is another program intended to provide experience in community primary medical care for University of Iowa medical students. Under this program as many as 50 medical students will work with Iowa physicians from 4 to 12 weeks in the areas of family practice, pediatrics or internal medicine. This elective plan is for senior students and is in addition to the two-week preceptorship which has been required.

HEART RESEARCH . . . 1973-74 grants-in-aid and fellowships in the cardiovascular field offered by the Iowa Heart Association must be applied for by November 30. Grants up to $7,000 are available for support of investigative work in both clinical and basic science areas. For information, contact Iowa Heart Association, 529 Thirty-sixth St., Des Moines 50312.

COUNCIL BLUFFS PROJECT . . . Health and nutrition exams will be given to about 530 persons in Pottawattamie County and Douglas County (Nebraska) during October and November as part of a survey program of the U. S. Public Health Service. This area is one of 64 sites for this Health and Nutrition Examination Survey. Examinations are conducted in a mobile examination center.

RINGGOLD NURSING . . . With the addition of a public health nursing service in Ringgold County, only 15 Iowa counties are lacking this type of health coverage.

CONSTRUCTION COMPLETED . . . Three nursing home projects were completed in Iowa during July adding 655 new beds of this type to the state's inventory. Total estimated value of this construction is $4.4 million.

VD GRANT . . . A grant of $170,465 has been awarded to the State of Iowa to expand its venereal disease control effort during the fiscal year 1973. The program is to be administered by the State Department of Health and is to utilize local medical societies, health departments, individual physicians, mass media and others to alert the general public about problem and danger of VD.

State Department of Health

ARNOLD M. REEVE, M.D., M.P.H., Commissioner

REVISED TREATMENT SCHEDULE FOR GONORRHEA

The U. S. Public Health Service has recently recommended substantial modifications in the therapy of gonorrhea. The Iowa State Department of Health recommends practicing physicians become familiar with and carefully follow the new recommendations.

Aqueous procaine penicillin G remains the drug of choice. Important changes made from previous treatment schedules include: (1) the dosage of penicillin for males has been doubled to 4.8 million units; (2) oral probenecid is now recommended as an adjunct to penicillin and ampicillin therapy in order to increase serum concentration of the antibiotic by inhibition of renal excretion; (3) ampicillin, with probenecid, is recommended as the preferred oral antibiotic regimen; and (4) spectinomycin is now the drug of choice for parenteral therapy when the use of pencillin, ampicillin or probenecid is contraindicated.

RECOMMENDED TREATMENT SCHEDULES FOR GONORRHEA—MARCH 1972*

The following information amplifies the preceding comments and represents the recommended treatment schedules for gonorrhea as set forth by the Venereal Diseases Branch, State and Community Services Division, CDC.

For *Neisseria gonorrhoeae* infection, the preferred drug is penicillin or ampicillin. Physicians are cautioned to use no less than the recommended doses of antibiotics.

FOR TREATMENT OF UNCOMPLICATED GONORRHEA (Urethral, Cervical, Pharyngeal, or Rectal)

Parenteral—Men or Women: Aqueous procaine penicillin G, 4.8 million units intramuscularly divided into at least two doses and injected at different sites at one visit, together with 1 gm of oral probenecid, preferably given at least 30 minutes prior to the injection. **or**

Oral—Men or Women: Ampicillin, 3.5 gm, with probenecid, 1 gm, administered simultaneously.

Treatment of contacts: Patients with known exposure to gonorrhea should receive the same treatment as those known to have gonorrhea.

WHEN PENICILLIN OR AMPICILLIN IS CONTRAINDICATED,† OR WHEN THE ABOVE SCHEDULES ARE INEFFECTIVE

Parenteral—Men: Spectinomycin, 2 gm, in one intramuscular injection. Women: Spectinomycin, 4 gm, in one intramuscular injection. **or**

Oral—Men or Women: Tetracycline HCl, 1.5 gm initially, followed by 0.5 gm four times a day for 4 days, a total dosage of 9 gm. Other tetracyclines are not more effective.

FOLLOW-UP

Follow-up urethral specimens should be obtained from men 7 days after completion of treatment; cervical and rectal specimens should be obtained from women at 7-14 days after completion of treatment.

COMPLICATIONS

Although treatment of complications (gonococcal salpingitis, bacteremia, arthritis, etc.) must be individualized, repeated large parenteral doses of aqueous crystalline penicillin G have been shown to be effective. The efficacy of alternate antibiotic regimens is unproven. Post-gonococcal urethritis can be treated with tetracycline, 0.5 gm, orally four times a day for at least 7 days.

SYPHILIS

All gonorrhea patients should have a serologic

(Please turn to page 599)

* Morbidity & Mortality Weekly Report CDC U. S. HEW **21**:82 (Mar. 11) 1972.

† Allergy to penicillin, ampicillin, probenecid, or previous anaphylactic reaction.

Pathology Capsules

by JERRY X. TAMISIEA, M.D.

TESTING THYROID FUNCTION

In 1967, Gold[1] stated, "No single laboratory test of thyroid function is diagnostically perfect for all patients." The intervening years have not diminished the truth of that remark.

The *in vivo* uptake of radioactive labelled iodine by the thyroid will detect the majority of hyperthyroid patients, but not some of the borderline cases and may miss many of the hypothyroid patients.

The Protein Bound Iodine (PBI) determination was heralded as the answer to medicine's problems, since it was an attempt to measure the iodine content of the thyroxine circulating in the peripheral blood. Time and experience have shown that many factors, i.e., drugs, foods, contaminates, intravenous pyelograms, cholecystograms, pregnancy, "the pill," etc., can influence or interfere with the PBI results and therefore destroy medicine's confidence in this test.

The first of the *in vitro* radioisotope tests, the determination of the degree of saturation of the thyroxine carrying (binding) globulins in the blood, the so-called "T-3" test, avoided many of the pitfalls of the PBI. This test originally was difficult to perform, but new developments have made it possible for the procedure to be universally available. The test is not a direct measurement of thyroid function. By itself, the test has not proved medically reliable since pregnancy or administration of the "pill" or other female hormones will increase the thyroxine binding capacity of the blood and thus a euthyroid patient will appear to be hypothyroid. If a patient has low serum proteins, due to inanition, cirrhosis, etc., the patient by this test would appear to be hyperthyroid.

The advent of another *in vitro* test, the measurement of serum thyroxine by competitive

This series of review articles is provided by the Iowa Association of Pathologists. This discussion has been prepared by Jerry X. Tamisiea, M.D., who provides anatomic and clinical pathology services from an office in Milford.

TABLE I

SOME COMMON FACTORS FALSELY INFLUENCING TESTS OF THYROID FUNCTION

Factors	T-3 (Protein Binding)	Serum Thyroxine (Murphy-Pattee)	PBI	Radioactive Iodine Uptake
Androgens	+	–	–	–
Female hormones	–	+	+	–
Pregnancy	–	+	+	–
Iodine	o	o	+	–
Salicylates	+	–	–	–
Antithyroid drugs				
Propythiouracil	o	–	–	–
Tapazole	o	–	–	–
Thyroid Replacement				
L-Thyroxine	o	+	+	–
Triiodothyronine	o	–	–	–
Pyelograms	o	o	+	–
Cholecystogram	o	o	+	–

NOTE: Increase (+). Unchanged (o). Decreased (–).

binding technics, as outlined by Murphy and Pattee[2] ushered in a whole new approach to the evaluation of thyroid function. The test is an indirect measurement of the total amount of thyroxine present in the blood, consisting largely of the fraction that is bound to the globulins and the smaller fraction of the "free" or unbound, physiologically active, thyroxine. By itself the test is somewhat limited in value since pregnancy, "the pill," and other female hormones will yield falsely high levels, thereby making a euthyroid patient appear to be hyperthyroid.

However, if a thyroxine binding (T-3) test and a serum thyroxine are run at the same time, a "Free Thyroxine Index" (an arbitrary figure obtained by multiplying the T-3 result times the serum thyroxine level) can be determined which reflects the amount of "free" physiologically active thyroxine that is available in the blood, and this reflects the degree of activity of the thyroid as it relates to the patient's thyroid state.

When the protein binding, the serum thyroxine and the Free Thyroxine Index are all decreased below normal, the patient is probably hypothyroid.

When the protein binding, the serum thyroxine and the Free Thyroxine Index are all increased above normal, the patient is probably hyperthyroid.

When the protein binding, the serum thyroxine and the Free Thyroxine Index are all normal, the patient is probably euthyroid.

When the protein binding is low, the serum thyroxine is high, and the Free Thyroxine Index is normal, the patient is probably euthyroid, but is usually pregnant, taking "the pill," or is stimulated by either endogenous or exogenous female hormones.

Time will tell if this approach to the evaluation of the patient's thyroid function is the ultimate answer. Possibly it is not, but our experience thus far indicates that it is a simpler, more reliable approach than has been available heretofore.

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Morbidity Report for September 1972

Diseases	Sept. 1972	1972 to Date	1971 to Date	Most Sept. Cases Reported From These Counties
Brucellosis	2	26	21	Cherokee, Wapello
Chancroid	1	6	1	Sioux
Chickenpox	80	6530	5471	Dubuque, Story
Conjunctivitis	22	665	371	Linn
Encephalitis				
Type unspecified	1	3	0	Muscatine
Gastrointestinal				
viral infection	257	4531	5808	Dubuque, Floyd, Jackson, Johnson
German measles	10	394	680	Dubuque, Jasper, Sioux
Gonorrhea	495	4557	4339	Linn, Polk, Scott
Hand, foot and				
mouth disease	3	3	0	Jasper
Hepatitis				
Infectious	27	230	243	Polk, Scott
Serum	2	45	12	Polk
Histoplasmosis	2	22	15	Polk
Impetigo	88	315	326	Johnson, Linn
Infectious				
mononucleosis	77	671	824	Johnson, Linn
Measles	14	730	2274	Sioux
Meningitis				
Meningococcal	2	3	11	Scott, Wayne
Pneumococcal	1	4	0	Calhoun
Viral	8	12	4	Benton, Linn
Type unspecified	4	18	10	Pottawattamie
Mumps	89	5766	3172	Calhoun, Dubuque
Pneumonia	61	660	651	Scott
Q Fever	1	1	1	Dickinson
Rabies in animals	16	290	194	Scattered
Rheumatic fever	1	26	45	O'Brien
Ringworm, body	9	61	107	Scattered
Salmonellosis				
S. agona	3	4	0	Black Hawk, Dubuque, Polk
S. berta	1	2	0	Polk
S. enteritidis	2	20	10	Johnson, Wapello
S. heidelberg	3	12	8	Polk
S. infantis	4	12	1	Iowa, Linn, Polk, Scott
S. java	2	10	1	Jefferson, Polk
S. manhattan	1	1	4	Clayton
S. newport	5	16	10	Dubuque
S. senftenberg	1	1	1	Story
S. typhimurium	7	59	37	Pottawattamie
S. typhimurium				
var. copenhagen	1	7	4	Woodbury
Shigellosis				
S. sonnei	32	225	139	Clinton, Dubuque, Linn
Streptococcal				
infections	403	5229	5146	Johnson
Syphilis	32	369	473	Black Hawk, Polk, Scott
Toxoplasmosis	1	2	0	Tama
Tuberculosis,				
active	14	90	98	Scattered
Whooping cough	5	38	41	Woodbury

Radiology Window

By DONALD C. YOUNG, M.D.

CASE NO. 7

The same disease process is present in each of these films selected from routine colon x-rays on three different patients. All of these patients are over 60 years in age. The significant presenting complaint was bright red rectal bleeding and/or a mucoid diarrhea. Identify the lesion on each film and if possible suggest a histologic diagnosis. Turn to page 600 for a further x-ray and a discussion.

This radiologic feature has been prepared and provided by Donald C. Young, M.D., who is associated with the Department of Radiology at Iowa Lutheran Hospital in Des Moines.

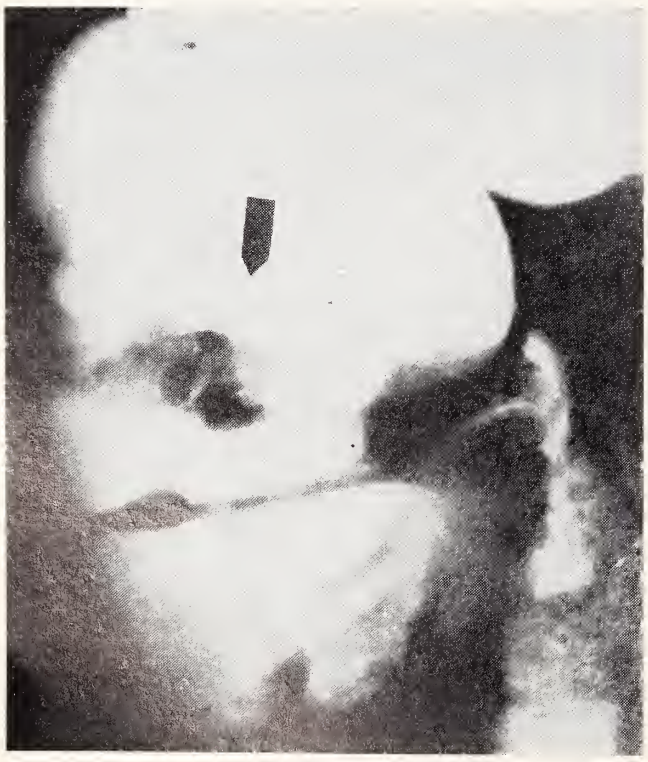


Figure 1

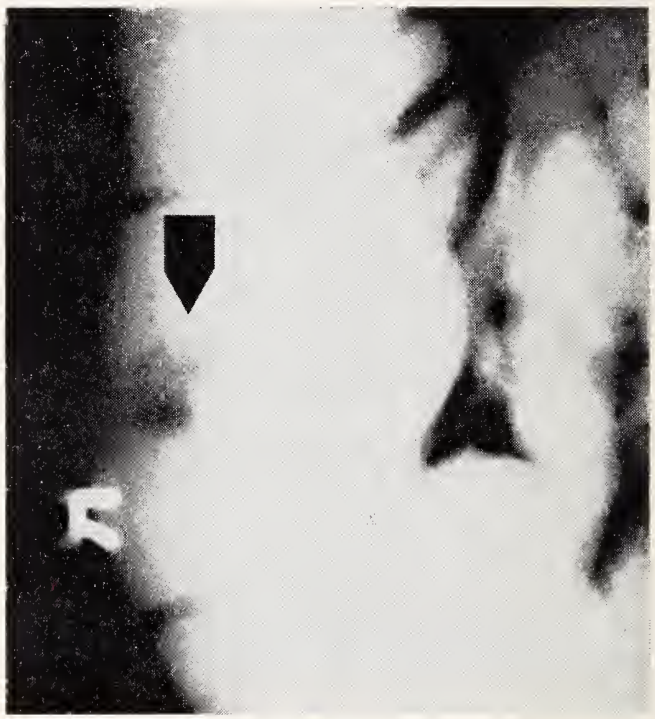


Figure 2



Figure 3

SCIENTIFIC ARTICLES

Oxygen Toxicity: Basic and Clinical Considerations

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Geologic evidence points to the absence of primordial atmosphere upon the Earth's formation and also suggests the present atmosphere is of secondary origin derived from sources contained within the Earth.[1] Conceivably the attainment of the present atmospheric level of oxygen evolved over a period of several billion years and it probably took just as long for man to evolve from a one cell organism. If man does recapitulate his ancestry in utero then at some stage in his fetal development even the normal concentration of oxygen is probably toxic to him just as much as when he is exposed to an environment with an oxygen concentration greater than atmospheric level. Thus we find the association of retrolental fibroplasia with the therapeutic use of oxygen in the premature infant.

In 1771 oxygen was discovered by Joseph Priestly and even then he had warned about the harmful effects of oxygen. His famous quote on "dephlogisticated air" bears repeating:

". . . from the greater strength and vivacity of a candle, in this pure air, it may be conjectured that it might be peculiarly salutary to the lungs in certain morbid cases, when the common air would not be sufficient to carry off the phlogistic putrid effluvium fast enough. But, perhaps, we may also infer from these experiments, that though pure dephlogisticated air might be very useful as a medicine, it might not be so proper for us in the usual healthy state of the body: for as a candle burns out much faster in dephlogisticated than in common air, so we might, as may be said, live out too fast, and the animal powers be too soon exhausted in this pure kind of air. A moralist, at least, may say, that the air which nature has provided for us is as good as we deserve."[2]

In the 18th century Thomas Beddoes, probably the first physician to administer oxygen therapeutically, and Lavoisier independently observed severe lung damage in animals who breathed pure oxygen.[3] It was J. Lorraine Smith, however, who probably made the earliest precise description of pulmonary oxygen toxicity.[4]

The 19th century was ushered in by great technological progress in medicine and industry.

This paper was presented at a seminar of the Anesthesia Department at The University of Iowa College of Medicine. The author was assistant professor and acting director of the Intensive Care Unit at that time. He is now chief of the Department of Anesthesia at the Marion General Hospital in Marion, Indiana.

THE SCANLON MEDICAL FOUNDATION/IOWA MEDICAL SOCIETY HAS DESIGNATED THIS ARTICLE AS THE HENRY ALBERT SCIENTIFIC PRESENTATION FOR THE MONTH OF NOVEMBER, 1972.

Oxygen became more available and its usefulness became more appreciated.

In the late 1950's intensive and respiratory care units were established and refinements of the technique of prolonged artificial ventilation came to the fore. A little earlier hyperbaric medicine was also introduced as a tool of medicine. With these developments the problem of oxygen toxicity became universally recognized and the need for studies to understand it better became more pressing.

CLINICAL PICTURE

The signs and symptoms of oxygen toxicity may be divided into those referrable to the central nervous system and to the respiratory system. Ohlsson[5] in 1947 showed that experimental animals died in convulsions and coma when high concentrations of oxygen under pressure of three or more atmospheres were administered. On the other hand when low pressures and high concentrations of oxygen were used death came in a few days by suffocation.

The central nervous system manifestations of oxygen toxicity in man were observed mainly among divers and human volunteers. Convulsion, which is the most prominent sign, may be the first clinical manifestation,[6] but is usually preceded by the occurrence of localized muscular twitchings, especially about the eyes, mouth, and forehead. The picture resembles grand mal epilepsy and can be prevented with central nervous system depressants or neuromuscular blocking drugs but this is symptomatic rather than specific therapy.[7] The later signs and symptoms reported are hiccups, confusion, respiratory arrest, dilated fixed pupils, aphoria, nausea, tinnitus and maniacal behavior. The morbidity among divers is minimal, retrograde amnesia being the only deficit persisting beyond 24 hours.[6]

The physician in the usual clinical setting is more familiar with the manifestations of oxygen toxicity on the respiratory system. Among human volunteers, early manifestations within 24 hours include irritation of the mucous membranes such as those of the nasopharynx[7] and paranasal sinuses,[5] substernal pain, and cough.[8] Caldwell[9] found that among volunteers who breathed 98% oxygen at 760 mm Hg there was a fall in pulmonary diffusing capacity after 30 hours and a fall in vital capacity after 60 hours. A detailed physical and x-ray examination of the chest did not reveal any significant change after 72 hours.

In a prospective study by Barber *et al*,[10] wherein two groups of comatose patients in the intensive care unit were mechanically ventilated, one group with air and the other with 100% oxygen, significant changes were evident in the arterial oxygen tension (PaO_2), pulmonary physiological shunt (QS/QT) and "wasted ventilation" (VD/VT) within a fairly short time in the group ventilated with 100% oxygen. There were significant changes in the VD/VT ratio after 31 hours and in the PaO_2 and QS/QT after 41 hours. All patients ventilated with oxygen showed definite x-ray changes as early as 20 hours after initiation of breathing with pure oxygen. There were no significant changes among those ventilated with air.

ABBREVIATIONS

PaO_2—arterial oxygen pressure
QS/QT—pulmonary physiological shunt
VD/VT—dead space—tidal volume ratio ("wasted ventilation")
F_IO_2—fraction of inspired oxygen
A-a—alveolar-arterial

The disturbances of oxygen toxicity among patients are typical of any diffuse parenchymal lung lesion associated with congestion, edema and fibrosis. The PaO_2 is decreased, lung compliance is reduced and ventilation-perfusion (V/Q) relationships are markedly disturbed.[10, 11] These changes lead to requirements for an increase in inflation pressure, an increase in tidal and minute volumes and an increase in the inspired oxygen concentration (F_IO_2) in order to preserve normal alveolar gas exchange.

A form of oxygen toxicity in the newborn that obstetricians and pediatricians are well aware of is the condition of retrolental fibroplasia and fibroplastic infiltration in the retina that may result in permanent blindness.[7] Prematurity plays a very important role in the incidence and severity of this complication of oxygen therapy.

PATHOLOGY

With the exception of retinal lesions in the premature newborn, pulmonary lesions would be the principal pathologic finding of oxygen toxicity in the clinical setting. Among patients who died after artificial ventilation with high concentration of oxygen, the lungs appeared grossly to be "beefy" and edematous. The findings on microscopic examination suggested two phases which merged and were not distinct: an early exudative phase and a late proliferative phase.[12]

The preceding findings correlate well with controlled animal studies.[13, 14, 15] Among monkeys, Kapanci, *et al*[14] found that breathing pure oxygen at one atmosphere causes the alveolar lining epithelium to be almost completely destroyed after 4 days. The destroyed type 1 epithelium is replaced after 7 days of exposure by a cellular lining consisting exclusively of type 2 epithelial cells. These granular pneumocytes seem to have a greater capacity for division and probably represent the reserve cells of alveolar lining. This hyperplasia is probably a nonspecific phenomenon but it is responsible for the marked diminution in the diffusing capacity through the air-blood barrier after 7 days of exposure to pure oxygen. A more significant response may be the early and marked effects on the endothelial cells. This appears to start with inconspicuous changes at the intercellular junction after 2 days of exposure. After 7 days the destruction of endothelial cells produce a 50% decrease in their total volume; on the 12th day this volume is 33% that of the control values.

Histochemical evaluation of the effects of inhalation of pure oxygen also reveals damage to elastic and reticulin fibers and the deposition of hyaline material with a high fibrin content on the surface of the alveoli.[16] It is also known that the surface active phospholipid lining of the alveoli is markedly diminished or absent.[15, 17] These changes would contribute greatly to the early and prominent changes in lung compliance.

The exact mechanism of oxygen poisoning at the cellular level is not known, but work on isolated tissues, cells, and enzymes has shown that oxygen at high pressure and even at atmospheric pressure is toxic to many enzyme systems, particularly to those containing sulfhydryl groups.[18] One of the sulfhydryl dependent enzyme systems is a series of intracellular peptidases known collectively as cathepsins. Rosenbaum and Wittner[19] studied the effect of oxygen on the lungs of rats, specifically in the proteolytic activity of these enzymes, and found it to be markedly inhibited. This inhibitory action of oxygen on these enzymes has implications with respect to the pulmonary pathology in oxygen toxicity, particularly in the early alveolar exudation.

SEVERITY OF OXYGEN TOXICITY

The partial pressure of the inspired oxygen is more significant than the pressure of the atmosphere in oxygen toxicity. Paul Bert[20] showed that oxygen convulsions in animals will start at about the same time when 100% is given at 4 atmosphere pressure and when 20% is given at 20 atmosphere pressure. Among human volunteers the onset of symptoms is accelerated when the partial pressure of the inspired oxygen is increased. Thus with 68-88% oxygen at 1 atmosphere pressure symptoms may occur by 4-12 hours and with 200% oxygen (2 atmospheres) symptoms appear in 2-4 hours.[8, 21]

At least one study attempted to show whether varying the actual concentration (not partial pressure) of oxygen in an oxygen-nitrogen mixture makes a difference in the severity of toxicity. Shanklin[22] determined the extent of lung injury in rabbits at 0.2, 0.6, 1.0 and 3 atmospheres in a series of oxygen-nitrogen environments with from 7-100% oxygen permitting direct comparison of partial pressure equivalencies and percentages. The results unequivocally showed that oxygen percentage is a critical factor.

The duration of exposure has been shown to be a very significant factor in the severity of oxygen toxicity. A group of rats which were exposed to 98.5% oxygen at one atmosphere in a controlled environment chamber were later sacrificed at 6, 24, 48 and 72 hours and their lungs examined. The pathology became worse with longer exposure specifically in the thickness of the gas blood tissue barrier.[13] Recent work by Huber *et al* [23] has also shown that high oxygen concentration in mice inhibits the ability of alveolar macrophage to kill the staphylo-

coccus aureus organism. Bacterial inactivation fell to 60% of air values after 48 hours of inhalation of oxygen and to 40% after 72 hours.

Many of the first cases of oxygen toxicity reported in the medical literature were about patients maintained on mechanical ventilation, so initially mechanical ventilation was thought to play a significant role in the pathology of oxygen toxicity. With the advent of more sophisticated ventilators on which the physician is able to regulate the inspired oxygen concentration, the incidence of this complication has been markedly reduced. A study done by deLemos[24] on two groups of lambs, one respired with oxygen spontaneously and the other mechanically, showed clearly that oxygen causes fatal pulmonary damage with or without artificial ventilation. No adverse effects resulted from the use of mechanical ventilation when high oxygen concentration was not insufflated.

It has been shown among laboratory animals that temperature and relative humidity plays a significant role in the severity of oxygen toxicity. Turtles, which are normally resistant to oxygen at 0.9 atmosphere, become as sensitive as warm blooded mammals when their temperature is elevated to 37.4° C to this oxygen concentration. It has been shown also that the toxicity of oxygen is increased if the relative humidity of the inspired atmosphere falls below 20% and above 90%.[5]

Clinical observers[5, 11] have noted that patients with diseased lungs who maintain low PaO_2 levels in spite of high F_IO_2 are quite resistant to oxygen toxicity. However, a study by Winter[25] showed that the presence of venous admixture does modify but does not prevent the toxic response to hyperbaric oxygenation. Their results suggest that the pulmonary manifestations of oxygen toxicity are not a purely local response to high oxygen tensions but involve an extrapulmonary factor which is dependent upon arterial rather than alveolar oxygen tensions. This is consistent with the clinical observation that patients with high A-a oxygen gradient appear to be more resistant to oxygen damage than normal volunteers.

The presence of an elevated arterial CO_2 tension enhances the toxic reactions to hyperbaric oxygen. The administration of TRIS buffer delayed the onset of symptoms among hypercarbic subjects[26] suggesting that the mechanism is related to the change in pH. As symptoms referrable to the central nervous system are enhanced it has also been suggested that the mechanism involved is related to the effects of hypercarbia on the cerebral blood flow.[27]

Hormonal factors have been found to significantly affect oxygen toxicity. The presence of increased sympathetic discharge seems to aggravate the symptoms but general anesthesia has been shown to provide some protection in laboratory animals.[27] It is also interesting that non-hypophysectomized animals become dyspneic and succumb in oxygen toxicity within a shorter period of time as compared to hypophysectomized animals. The consensus appears to be that the presence of adrenocorticoid hormones aggravate oxygen toxicity.[28]

OXYGEN AS A DRUG

It is vitally important for the clinician who uses oxygen in therapy to think of it as a drug. We know that the toxic effects of oxygen are dose related. The prolonged use of oxygen in concentrations between 21-40% is generally safe but beyond this concentration an attempt at precise quantification should be made in order to utilize the least amount that is required to maintain a satisfactory arterial oxygen tension. The old dictum that "oxygen is safe when the lung is diseased" has been proven to be inaccurate.[25]

Hypoxia should not be allowed to take place because of the fear of oxygen toxicity. However, it should be noted that when cardiovascular status is satisfactory, an arterial oxygen tension of 60-90 mm Hg is generally adequate. In a study which determined arterial oxygen tension among patients from different age groups with normal respiratory function, it has been shown that the ideal figure of 90 mm Hg is reduced by about 5 mm Hg for every decade of life above 30 years.[29]

Mechanical ventilation, although it has its own peculiar problems, does not contribute to the severity of oxygen toxicity. It may help to reduce toxicity by treating the respiratory acidosis or hypercarbia. The institution of continuous positive pressure breathing (CPPB) and "hold inflation," recent features of the newer ventilators, also facilitates the attainment of satisfactory arterial oxygen tension with lower inspired concentrations.

Noting the early occurrence of increased alveolar exudation and interstitial edema in oxygen toxicity, with morphologic evidence of endothelial leak, Morgan[30] would caution in the replacement of plasma volume among oxygen intoxicated patients by non-colloid solutions.

The precise factors influencing the concentration and duration of exposure to oxygen necessary to produce lesions are not well defined. However, the prospective studies of Barber *et al*[10] as quoted earlier show that lung parameters do change within a fairly short period of time after exposure to high oxygen concentration. The anesthesiologist should be more aware of the excessive and sometimes unnecessary use of oxygen in the operating and recovery areas. We are not sure that this does not contribute significantly to postoperative morbidity. Close monitoring of the inspired oxygen concentration as well as the arterial oxygen tension should be done whenever long term oxygen therapy is instituted.

REFERENCES

The references noted in this article are available on request from either the author or the JOURNAL OF THE IOWA MEDICAL SOCIETY.

PASS 1972 AMENDMENTS

On October 17 Congress agreed to a compromise version of the 1972 Social Security Amendments. The final bill makes extensive changes in the Social Security program, as well as in Medicare, Medicaid and Maternal and Child Health programs.

The new legislation provides for Professional Standards Review Organizations (PSRO). Said organizations must represent a substantial proportion of the practicing physicians in a local area designated by the Secretary of HEW by January 1, 1974, and will provide comprehensive and ongoing review of Medicare and Medicaid services.

The legislation also extends Medicare to include Chiropractic services. Chiropractors must be licensed at the state level. Covered services are limited to treatment by manual manipulation of the spine "to correct a subluxation demonstrated by X-ray to exist."

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Childhood Nephrotic Syndrome With Minimal Histopathologic Change: Responsiveness to Prednisone Therapy

MARVIN HARNER, M.D.
Iowa City

THE PURPOSE OF THIS PAPER is to explain the approach to therapy of idiopathic nephrotic syndrome we have used over the past two years and to provide a retrospective review of the renal biopsy experience which shaped our approach to management. The goal of corticosteroid therapy of idiopathic nephrotic syndrome is to induce a urinary remission with minimal doses of corticosteroid thereby avoiding serious side effects. An initial remission as measured by loss of proteinuria is indirect evidence of idiopathic nephrotic syndrome. We feel there is no need to perform a renal biopsy on every such patient. However, failure to achieve an initial remission is indication for renal biopsy in order to plan further management.

The nephrotic syndrome is characterized by massive proteinuria, hypoalbuminemia, hypercholesterolemia and edema. Massive proteinuria, the primary manifestation of the nephrotic syndrome is defined in children as 1000 mgm or more of protein per 100 ml of urine or $\geqq$2.0 gm/m^2/24 hours.[1] In childhood the nephrotic syndrome can be divided into six general categories: (1) congential and familial; (2) secondary to nephrotoxic agents such as bee-sting venom or Tridione®; (3) as a manifestation of systemic disease, i.e., lupus nephritis or diabetic nephropathy; (4) secondary to renal vein thrombosis; (5) idiopathic nephrotic syndrome (INS) and (6) secondary to primary renal disease. In the last category are found a host of different diseases where distinctions are best made by descriptions of renal biopsy. In childhood the most common category is INS.

Dr. Harner was a resident in the Department of Pediatrics at The U. of I. College of Medicine when this article was prepared. He is now serving in the Navy at Camp Pendleton, California.

PRIMARY RENAL DISEASE ASSOCIATED WITH NEPHROTIC SYNDROME

Difficulty arises most often in distinguishing clinically between INS and primary renal disease. This difficulty had its greatest impact on evaluation of corticosteroid responsiveness of INS because of the limitations on the accuracy of diagnosis in the pre-biopsy era. With the introduction of the techniques of renal biopsy and electron microscopy differential diagnosis and clinical-pathological correlation has been possible. Morphologic description of primary renal disease includes proliferative, membranous, membrano-proliferative and focal sclerosing glomerular lesions and "glomerulitis" similar to resolving post-streptococcal glomerulonephritis.[2] Table 1 summarizes light microscopy morphologic descriptions of primary renal disease associated with the nephrotic syndrome. Primary renal disease has shown a poor response to corticosteroid therapy.[3]

IDIOPATHIC NEPHROTIC SYNDROME

Idiopathic nephrotic syndrome is characterized morphologically by minimal changes in the renal glomerulus studied by light microscopy; however, electron microscopy demonstrates fusion of the epithelial foot processes.[4-6] IgG or beta$_1$-c globulin on the basement membrane cannot be demonstrated by immunofluorescent techniques.[1] Response to corticosteroids is associated with normalization of the electron microscopic findings.[4-6]

Clinically, INS may be suspected in a child one to six years of age presenting with massive proteinuria whose family history and present illness do not suggest other categories of classification. Findings upon physical examination are related to the degree of edema with occasional elevations in diastolic blood pressure. Gross or microscopic hematuria does not exclude the diagnosis of INS; however, it does increase the probability of another etiologic classification and therefore a poor response to corticosteroid therapy.[7]

Laboratory studies which support the clinical impression of INS are a normal antistreptolysin O titer, serum creatinine, post-prandial blood glucose, intravenous urogram and a negative LE preparation. Total hemolytic complement (serum C′) is normal or may be transiently depressed which helps to differentiate INS from primary renal disease in which serum C′ may remain consistently depressed. Protein electrophoresis shows a depressed albumin and gamma-globulin peak with elevation of the alpha$_2$-globulin fraction. A quantitative urine culture obtained during the initial episode or relapse is useful since urinary tract infections are associated with a poor corticosteroid response.[8]

PATIENTS WITH NEPHROTIC SYNDROME

Forty children with the nephrotic syndrome were seen from June 1966 to June 1970. Renal biopsies were obtained on 19 children either during or prior to the period of review. The discussion is confined to a retrospective review of our renal biopsy experience with these 19 patients. Reasons for biopsy were: (a) no response to corticosteroid therapy; (b) steroid dependence; (c) multiple relapse, and (d) clinical impression of diseases other than INS. Sixteen of the 19 biopsied patients had received prednisone 60 mgm/m^2/24 hours or 2 mgm/Kg/24 hours for a minimum period of one month. Three of the 19 biopsied patients received no corticosteroid therapy prior to biopsy. Total hemolytic complement (serum C′) values were obtained on 18 of the 19 biopsied patients.* According to West, C′3 component generally parallels the level of total hemolytic complement activity.[10]

RESULTS

The results of initial response to Prednisone therapy as a function of morphologic diagnosis are given in Table 2. Patients responding to Prednisone therapy were divided into three groups: those who achieved a urinary remission within four weks (Responders); those who achieved a urinary remission after four weeks (late Responders); and non-Responders. Of the 7 patients with minimal histopathologic findings (INS), 5 were Responders and 2 were late Responders. Normal serum C′ concentrations were found in patients in this category, although 4 patients had transient depression of serum C′ which later returned to normal. All patients with minimal histopathologic findings had multiple relapses; however, none occurred

* Normal total hemolytic complement 67-167 units/ml.[9]

TABLE I

MORPHOLOGY OF PRIMARY RENAL DISEASE ASSOCIATED WITH THE NEPHROTIC SYNDROME

Glomerular Lesion	Morphologic Changes
Proliferative	
a) Exudative	Polymorphonuclear cell infiltration of tuft and diffuse mesangial proliferation.
b) Mesangial	Diffuse increase mesangial cells and polymorphonuclear cells scanty to absent. Epithelial cell proliferation and adhesions are absent. Lesion seen in resolving post-streptococcal nephritis.
c) With crescents	Proliferation of epithelial cells to form crescents, generally small to moderate in size, causing incomplete obliteration of urinary space.
d) Focal	Mesangial proliferation and crescents are both focal and segmental in distribution.
Membranous	Capillary walls diffusely thickened due to accumulation of immune deposits on the outer aspect of the basement membrane. Cellular proliferation generally absent.
Membrano-proliferative	Combination of diffuse mesangial proliferation and capillary wall thickening. Extreme proliferation and mesangial thickening give tufts a lobulated appearance.
Focal sclerosing	A mixture of normal, partly and completely sclerosed glomeruli; tubular atrophy and interstitial inflammatory changes also present.
Chronic glomerulonephritis	Glomerular changes are so far advanced that distinctive morphologic changes have disappeared.

during the treatment plan to be discussed. Renal function has remained normal during follow ups from 2 to 14 years duration.

Of the 12 cases considered to have more than minimal histopathologic changes in their biopsied specimens, 9 received Prednisone therapy. The three cases classified as congenital nephrotic syndrome with depressed serum C′ failed to respond to Prednisone therapy. Of the remaining six children who were considered to have the nephrotic syndrome as a manifestation of primary renal disease 5 were non-Responders. Four of these had depressed serum C′ concentrations and the fifth case had a normal level of serum C′. The three patients in the no treatment group were classified in categories 1, 2 and 6. For two of these patients, serum C′ was depressed. Of the 11 patients classified in categories 1 and 6 all have shown evidence of deterioration of renal function.

TREATMENT PLAN

Before the introduction of our treatment plan, no uniform program or defined period of therapy was provided for patients with INS. During the past two years a treatment plan evolved from review of our biopsy experience and initial responsiveness to Prednisone therapy. In addition, the treatment plan aided in selecting those patients who would benefit from renal biopsy.

Once a clinical impression of INS is made, our practice is to initiate therapy with Prednisone 60 mgm/m^2/24 hours given in four divided doses not to exceed 80 mgm/24 hours. Since our primary criterion for remission is a urinary excretion of protein below 200 mgm per day, we carefully collect a 24-hour urine sample if possible. Otherwise we test a sufficient number of daily urine samples for protein. Remission is frequently achieved approximately 14 days following initiation of therapy. The clinical and biochemical remission follow improvement in the urinary aspect of the nephrotic syndrome.

After urinary excretion of protein falls below 200 mgm per day, the child is placed on an intermittent steroid program. Our practice is to administer Prednisone every other day in a single dose given between 7:00 and 8:00 a.m. The dose is calculated at 1.33 times the daily dose which is approximately 80 mgm/m^2/q 48 hours. This program of therapy is continued for a period of 12 months. A relapse may be treated in a similar manner.

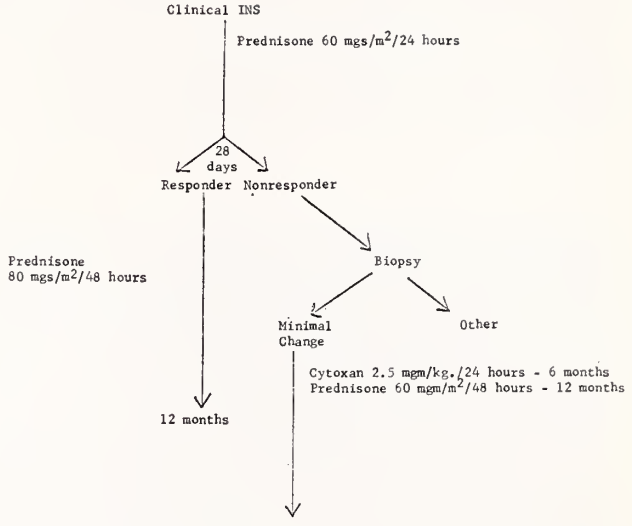
If the patient fails to attain a urinary remission after four weeks, a renal biopsy is performed to aid in planning for further medical management. Occasionally this period may be extended to eight weeks if a child shows mild proteinuria and continuing improvement. In such instances an intermittent steroid program is initiated after four weeks of daily Prednisone therapy. If the renal biopsy reveals minimal histopathologic change, a combination of Prednisone and cyclophosphamide (Cytoxan) is administered. Cytoxan is given in a single dose each day at 2.5 mgm/Kg and Prednisone is given every other day in a single dose of 60 mgm/m^2/q 48 hours. Cytoxan is continued for

TABLE II

	Total Serum Hemolytic Complement	No. Patients	Initial Responder	Late Responder	Non-Responder	No Treatment
Minimal change	Normal	7	5	2	.	.
Proliferative glomerulonephritis						
Mesangial (glomerulitis)	Normal	1			1	
Focal	Normal	1	1			
Membranous glomerulonephritis	<50	2			1	1
Membrano-proliferative glomerulonephritis	<50	1			1	
Glomerulosclerosis	<50	1			1	
Chronic glomerulonephritis	<50	2			1	1
Congenital nephrosis	<50	3			3	
	Not done	1				1
Total		19	6	2	8	3

6 months while alternate-day Prednisone is continued for 12 months. Indications for interrupting Cytoxan therapy are a white cell count below 4000/mm^3, hemorrhagic cystitis[11] or exposure to chicken pox.[12] Multiple relapses are treated in a similar manner. A diagrammatic scheme of mode of management is given in Figure 1.

FIGURE I



DISCUSSION & CONCLUSION

From the literature approximately 75 per cent of children with the diagnosis of INS based upon a clinical impression respond initially to corticosteroid therapy.[7, 13-15] From our biopsy material 5 of the 6 Responders had a morphologic diagnosis of minimal histopathologic changes. White's clinical pathological study of the nephrotic syndrome in childhood showed that 96/128 (75%) of children responded to steroids within eight weeks.[16] Minimal changes were present in 93/96 (97%) of these individuals. Thus, an initial response to corticosteroids in a child with nephrotic syndrome is indirect evidence of INS and there is no need to perform a renal biopsy. Serum C′ concentrations in these patients are generally normal; however, they may be transiently depressed. A serum C′ which remains depressed is probably indicative of another etiologic classification.

If a child fails to attain a urinary remission after 4 weeks of daily Prednisone therapy, renal biopsy is indicated. The lack of initial responsiveness to Prednisone does not rule out INS. However, it is more likely that one is dealing with an etiologic classification other than INS, especially if serum C′ remains depressed. If renal biopsy discloses an etiologic category other than INS, the child generally benefits from appropriate management for the respective morphologic diagnosis. If renal biopsy demonstrates minimal histopathologic changes, combined therapy with Prednisone and Cytoxan has proven of value.[11, 17-18] Renal biopsy should be performed before management with combined therapy since sustained remissions have been demonstrated only in biopsy proven minimal histopathologic changes.[11]

SUMMARY

The approach to management of INS in children we have used over the past two years is presented. The approach we used emphasizes careful clinical evaluation and initial response to Prednisone therapy. The majority of children with a clinical impression of INS respond to Prednisone therapy. An initial response to Prednisone therapy is indirect evidence of a histopathologic diagnosis of minimal changes and a renal biopsy is not necessary. Renal biopsy is indicated in a non-Responder in planning subsequent clinical management.

ADDENDUM

Since this paper was submitted for publication, two important articles have appeared concerning cyclophosphamide (Cytoxan) therapy. A controlled study of relapsing childhood nephrotic syndrome has demonstrated a significant reduction in relapse after induction of remission with Prednisolone followed by an eight week course of Cytoxan over a Prednisolone treated control group.[19] Thus, a lower effective dose of Cytoxan at 3 mgm/Kg/24 hours for eight weeks has proved effective. However, low sperm counts or azoospermia has been reported in 31 adult men treated with Cytoxan. Treatment with Cytoxan for six months or more resulted in azoospermia.[20] With this potential complication in mind, the proven efficacy of Cytoxan in steroid resistant and multiple relapsing childhood INS must be weighed against the toxicity of long-term steroid therapy.

REFERENCES

The references noted in this article are available on request from either the author or the JOURNAL OF THE IOWA MEDICAL SOCIETY.

Polycythemia Rubra Vera and Serial Thromboses

WILLIAM C. WEESE, M.D.,
JAMES CHRISTENSEN, M.D., and
RAYMOND F. SHEETS, M.D.
Iowa City

Spontaneous thrombosis is a frequent cause of morbidity in polycythemia rubra vera (PRV). Cerebral thrombosis is common; coronary involvement is less frequent; and thrombosis in an extremity is rare. Portal vein thrombosis seldom has been reported.

The diagnosis of PRV is often elusive when the first manifestations are the uncommon ones. The purpose of this paper is to present a patient in whom multiple isolated episodes of thrombosis were the initial clues to the diagnosis; probable thrombosis of the portal vein led to portal hypertension and hemorrhage from esophageal varices.

REPORT OF CASE

A mute, unmarried 46-year-old retired army sergeant was first admitted to the Iowa City Veterans Administration Hospital September 30, 1969. He had been in good health until 1966 when he was hospitalized elsewhere for an obstructing duodenal ulcer. On December 6, 1966, he underwent vagotomy and pyloroplasty. At operation, the spleen was accidentally nicked and had to be removed because of uncontrollable hemorrhage. The post-operative course was complicated by thrombophlebitis in the right calf with pulmonary embolism, subphrenic abscess, and thrombophlebitis of the left arm with another pulmonary embolism. Examination of the spleen showed a slightly firm 500 gm organ with an old central infarct, scattered areas of recent infarction, and an increased number of eosinophils. Pre-operative hematocrit was 43, hemoglobin 14.0 gm%, platelets 354,000, and alkaline phosphatase 4.0. WBC ranged from 12,000 to 27,000.

In May, 1968, the patient was rehospitalized after two weeks of spells characterized by dizziness, nausea, vomiting, dysarthria, and inability to walk. Four days after admission, what was to become a permanent mutism with a right-sided hemiparesis developed, hypertonicity, hypalgesia, palsy of the seventh cranial nerve, and positive Babinski and Hoffman signs. Lumbar puncture and skull x-rays were normal. Brain scan (Tc^{99}) showed a large area of increased radioactivity in the left parietal region. Electroencephalogram demonstrated a strong left hemisphere delta rhythm indicative of a destructive lesion involving the left cerebral hemisphere. The clinical impression was left middle cerebral artery thrombosis. An electrocardiogram (normal in 1966) now showed prominent Q waves in leads II, III, and avF, indicative of an old inferior myocardial infarction. Hematocrit was 32.5, hemoglobin 10.2 gm%, platelets 660,000 with a WBC of 15-20,000. Erythrocyte sedimentation rate (ESR) was 16.

There was a third admission to the same hospital in July, 1968, for gangrene of the right fifth toe with absence of pulses distal to the femoral. Cellulitis developed and, July 11, 1968, the patient underwent a high right above-the-knee amputation. The specimen showed a black dry fifth toe with a well demarcated area of gangrene and an erythematous, mottled lateral aspect of the foot. There was a thrombus beginning 1 cm from the proximal end of the femoral artery, extending to the branches of the popliteal artery. There was also narrowing of the posterior tibial, anterior tibial, and peroneal arteries, all three of which were occluded distally by an old tan thrombus. During that admission, hematocrit was 31, hemoglobin 9.4 gm%, WBC 20,000, RBC 4.50 million, and alka-

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line phosphatase 4.4. Platelets were increased on peripheral smear.

For one year before the first Iowa City VAH hospitalization, the patient lived in a nursing home. Admission in September, 1969, was prompted by his progressive hostility believed to be secondary to chronic constipation caused by painful hemorrhoids. Examination revealed a very anxious and hostile, thin man in no distress. He was afebrile. Blood pressure was 100/65; pulse was 72; respirations were 16. He was mute, though apparently comprehended simple commands. There was mild spastic paralysis of the right arm and a well healed surgical amputation of the right leg near the hip. An apical systolic ejection murmur was heard. The right femoral pulse was absent, but other arterial pulses were normal. The liver edge was just palpable below the right costal margin. There were two well healed abdominal scars and rare dilated abdominal veins. There was no clubbing and no ruddiness to the complexion. The patient had smoked one package of cigarettes daily. There was no history of excessive alcoholic intake.

Hematocrit was 32, hemoglobin 8.9 gm%, and RBC 5.6 million. The WBC ranged from 12-20,000 with 75% polymorphonuclear leukocytes. The platelet count varied over several days from 1,200,000 to 2,000,000. ESR (Wintrobe, normal 0-10) ranged from 0-3. Serum iron was 17 with a total iron binding capacity of 432, indicative of iron deficiency anemia. Other pertinent laboratory data are listed in the Table. VDRL, BUN, creatinine, SGPT, calcium, phosphorous, bilirubin, urinalysis, prothrombin time, bleeding and clotting times, haptoglobin, cholesterol, direct and indirect Coombs tests were all within normal limits or negative. BSP retention was 3% (normal) at 45 minutes. The serum albumin was 3.4 gm%, and globulin was 3.8 gm%; protein electrophoresis showed mildly elevated alpha-1 and alpha-2 fractions with normal beta and gamma fractions. A chest x-ray revealed old pleural thickening and borderline cardiomegaly. An electrocardiogram showed the old inferior wall myocardial infarction. An intravenous pyelogram was normal. Bone marrow examination demonstrated absence of stainable iron and hyperplasia of all elements, especially the erythroid series; myeloid to erythroid ratio was 5:2.

The patient's extreme hostility precluded initial thorough evaluation. He was quite withdrawn, frequently locking himself in the bathroom. On several occasions, blood was seen on the bathroom floor. A nasogastric tube yielded guaiac positive material. An upper gastrointestinal examination revealed prominent esophageal varices (see Figure) with slight displace-

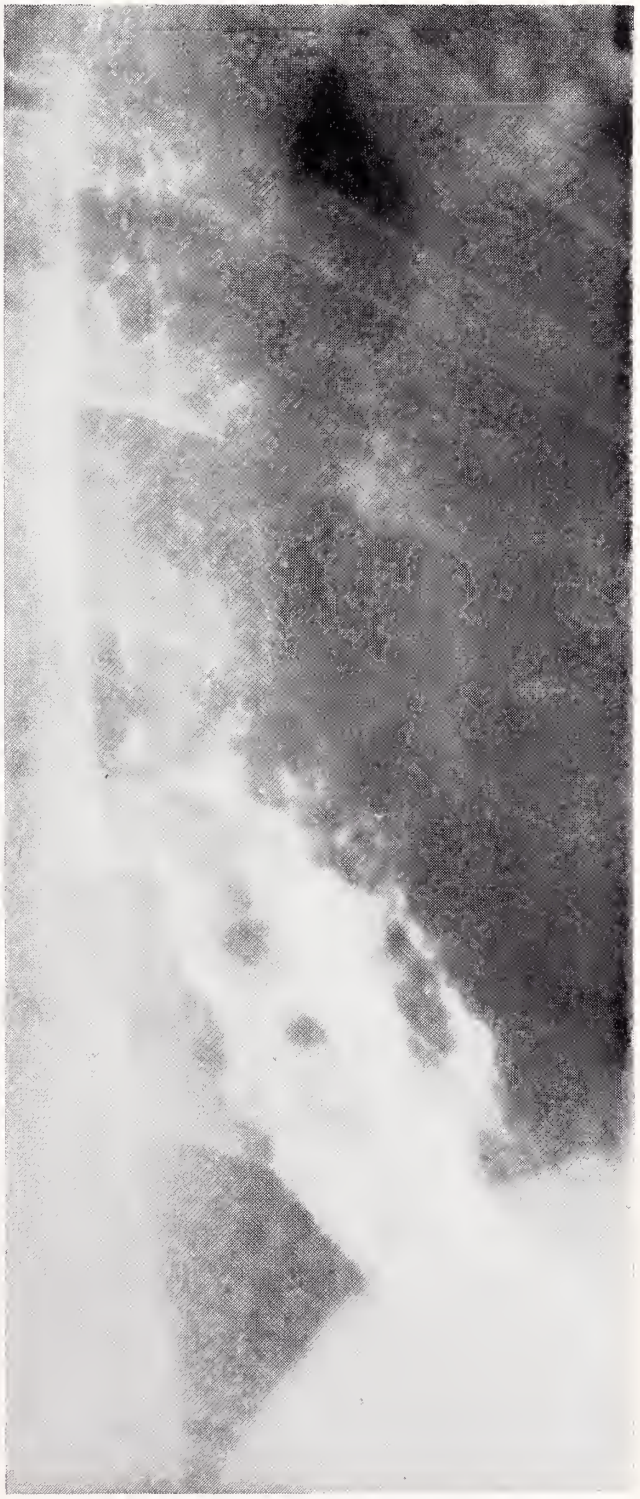


Figure 1. Upper gastrointestinal examination showing prominent esophageal varices.

TABLE I

LABORATORY DATA

Study	Normal Range	Present Case	
Arterial blood gasses:			
pO_2 (mm Hg)	>80	82	
% hemoglobin saturation	>93	95.4	
pCO_2 (mm Hg)	38-42	42	
pH	7.38-7.42	7.42	
Blood volume:			
total (ml/kg)	50-90	119*	114†
RBC mass (ml/kg)	24-32	52*	57†
plasma volume (ml/kg)	28-38	67*	57†
Ferrokinetics:			
^{59}Fe plasma clearance ($t_{½}$ in minutes)	60-120	50	
plasma iron turnover (mg/kg/day)	0.3-0.5	0.62	
Uric acid (mg%)	2.5-7.0	8.5	
Leukocyte alkaline phosphatase (units)	<106	139	
SGOT (units)	10-40	25-65	
LDH (units)	<500	500-600	
Alkaline phosphatase (Bodansky units)	<2.5	2.4-8.8	

*First admission. †Second admission.

ment of the stomach to the left, consistent with enlargement of the left lobe of the liver. The patient's iron deficiency anemia was treated with a total of 36 cc of intramuscular iron dextran since he refused oral medications. On November 10, 1969, he vomited bright red blood. Hemorrhage was well controlled with intravenous vasopressin, iced-saline lavage of the stomach, and transfusion of three units of whole blood. He remained stable throughout the remainder of the hospitalization.

Rose Bengal as well as Tc^{99} colloid scans demonstrated a normal liver size with diffuse disease and prominence of the left lobe. A Rose Bengal clearance was prolonged ($t_{½}$ = 11⅓ min). Superior mesenteric arteriogram showed normal arterial vasculature, but was not adequate for proper definition of the venous phase. No contrast material, however, was seen within the portal system.

The clinical impression was PRV with portal vein thrombosis, secondary portal hypertension, and bleeding esophageal varices. In view of the patient's refusal to take medications orally, it was decided to treat him with radioactive phosphorus (p^{32}).

On January 19, 1970, he received 4.3 microcuries of intravenous p^{32}. On readmission in May, 1970, hematocrit was 35, hemoglobin was 13.5gm%, and WBC 10,300. Platelets had fallen to 855,000-1,000,000. Uric acid was 7.0. Blood volume studies were essentially unchanged from those of the first admission (see Table). He was given a second dose of 4 microcuries of intravenous p^{32}. In March, 1971, the hematocrit was 39, hemoglobin 12.8 gm%, and platelet count 605,000. It was elected not to administer additional radioactive phosphorus.

DISCUSSION

Polycythemia rubra vera (PRV) was originally described by Vaquez in 1892. The first series was reported by Osler in 1908. Several excellent reviews of the diagnosis, pathophysiology, course, and treatment have appeared in the recent literature.[1-10] The prime differential diagnosis lies in excluding relative polycythemia (due to dehydration) and the several secondary polycythemias, namely cyanotic heart disease, endocrinopathies, lung disease, obesity, stress, "Pickwickian" syndrome, noxious stimuli, and erythropoietin producing tumors.

The diagnosis of PRV in this patient rested on the elevated red blood cell mass and plasma volume, normal arterial oxygen saturation of hemoglobin, splenomegaly, mildly elevated leukocyte alkaline phosphatase, hyperplasia of all elements in the bone marrow, leukocytosis, thrombocytosis, and absence of clubbing. Supporting the diagnosis were the low ESR (in contrast to the leukocytosis), elevated uric acid, normal intravenous pyelogram, multiple thrombotic episodes, history of duodenal ulcer, occurrence of a myocardial infarction in a young man with normal cholesterol and without personal or family history of heart disease, and absence of clinical evidence of chronic obstructive lung disease. Plasma iron clearance, slightly accelerated in this patient ($t_{½}$ = 50 min; normal 60-120 min), is usually even more rapid in most patients with PRV ($t_{½}$ less than 30 min).[11]

The multiplicity of thrombotic episodes in this patient was striking. Peptic ulceration has been reported as the presenting symptom or complication in 12-16% of large series of PRV patients,[1-3] the high incidence being attributed to underlying thrombosis of mucosal vessels. Surgery is more difficult in PRV, and this patient's vagotomy and pyloroplasty was complicated by subdiaphragmatic abscess and two epi-

sodes of peripheral thrombophlebitis with pulmonary embolism. During the ensuing two years, he suffered a clinically silent myocardial infarction, which, itself, may be the presenting symptom in 1-3% of patients.[4, 7] His next complication, still before the diagnosis was clinically appreciated, was a cerebral thrombosis, the initial complaint in 2-11% of patients.[2, 4, 7] Three months hence, amputation was required for femoral artery thrombosis. Peripheral vascular disease has been listed as the first symptom in 7-19% of large series of PRV patients[2, 4, 7] and in nearly 50% of patients in a recent surgical series.[12]

It was also strongly suspected, though it could not be confirmed short of laparotomy, that the esophageal varices were related to thrombosis of the portal system. Varices are a sign of portal hypertension, which, in turn, may be secondary to a wide variety of causes. The patient was not known to be an alcoholic. Liver function studies were not markedly abnormal, and BSP retention was 3%. The usual documentation of portal vein thrombosis is by splenoportography, but previous surgery precluded this procedure. Mesenteric arteriograms, while not showing late opacification of the portal system, were inadequate to define the venous phase clearly. The prolonged Rose Bengal clearance and the diffuse abnormalities on the two liver scans were all compatible with, but not unequivocally diagnostic of, portal vein thrombosis.

Portal vein thrombosis in PRV is of particular interest because of the rarity of its association with bleeding esophageal varices. Lauchlan and Walsh reported a 58-year-old woman with a myeloproliferative disorder and multiple thromboses, in whom esophageal varices and portal vein thrombosis were evident at autopsy.[13] Alford *et al* described a 61-year-old woman with PRV and hemorrhage from esophageal varices, in whom splenoportography and later laparotomy failed to demonstrate patency of the portal vein.[14] Reference was made to two adults with PRV and bleeding esophageal varices secondary to portal vein thrombosis in a series of 47 non-cirrhotic patients with portal vein thrombosis by Thompson and Sherlock, but no details of the case reports were given.[15] Finally, Scherl and Klein reported a 67-year-old housewife with PRV, massive thrombosis of the portal system, and bleeding esophageal varices who died from extensive small bowel infarction.[16]

SUMMARY

Multiple isolated episodes of thromboses over three years were the initial symptoms in a patient with polycythemia rubra vera. He later bled from esophageal varices, a sign of portal hypertension secondary to portal vein thrombosis. Increased attention to the uncommon modes of presentation of this disorder should lead to earlier diagnosis in some patients.

REFERENCES

The references noted in this article are available on request from either the authors or the JOURNAL OF THE IOWA MEDICAL SOCIETY.

I REMEMBER WHEN—DO YOU?

When nearly all obstetrical cases were delivered in the home. For me this was in the years 1926 to 1940, and even a bit later. There was little prenatal care and conditions in the home sometimes were not so clean. With newspapers, a sterile sheet or sterile wax paper, and sterile gloves, we somehow did get fairly good results and had no fatal cases of septicemia. I did have one death from a delivery in the hospital. Maybe they (the mothers) were immune to the bacteria they were exposed to at home.

An unusual incident occurred in a home during this period. I was called to deliver a youngster. Just as I entered the door in the one-story home, I heard a screeching yell coming from the bathroom. The mother thought she was going to the bathroom to have a bowel movement. On the stool the baby was born. I rushed to her and got her to stand up. I reached down into the water with bare hands and picked up the baby by the feet. Fortunately the baby began to cry. Apparently there was no inhalation, at least in an amount enough to cause trouble. This rather amusing incident should have been recorded pictorially; the mother waddling 20 or more feet back to bed with the cord extending between her legs to the baby I was carrying about 2-3 feet behind her. All went well. Healthy normal child.—OTTO N. GLESNE, *M.D., Chairman, IMS Historical Committee.*

Editorials

M. E. ALBERTS, M.D., Scientific Editor

WHO'S LISTENING?

Every day we discuss with our patients many subjects which are commonplace to us. We tend to forget however these matters are entirely foreign to the patient. We are rightfully required to inform our patients of the ramifications of a surgical procedure so we may obtain surgical permission based on "informed consent." But how much does the patient really understand? Does he nod his head in reassuring understanding, and then later shake his head in utter confusion?

What a patient understands was demonstrated in a study reported recently by Leonard *et al.** This study showed that genetic counseling often falls short of its objective because of lack of understanding, or perhaps because of a poor presentation of the facts by the physician. The study indicated 50 per cent of the people grasped the information presented in the genetic counseling, while the other half was divided between some understanding and very little. This is a rather sad commentary on the physician-patient communication process. Is it because the patients are not listening, or are they failing to comprehend? Certainly in many instances the patient definitely is not listening. Often we talk to patients in the hospital as they stare intently at the ever-present television unit. In some instances, it is probably just as well they have the television for what the doctor is explaining is couched in language that only another physician could understand. We must do our utmost to gain the attention of our patient, and we must choose our language so the patient will understand. Furthermore, the patient must be given the opportunity to plead a lack of understanding so that a further elaboration of the moot points might be presented. Certainly we, as well as our patients, will profit from better understanding.—M.E.A.

FROZEN EMBRYOS

The National Society for Medical Research reports that an English scientist has artificially fertilized mice ova in a test tube, then cultured the eggs to the eight-cell stage. The growth process was stopped by lowering the temperature of the embryos to approximately minus 79°C. Later, the embryos were thawed, implanted on the uterine wall of foster mothers, and development progressed to normal infant mice. The researcher, Dr. David G. Whittingham, of the University of Cambridge, ventures no speculation about what the process could mean in human reproduction. However, it provides a method to preserve many generations of laboratory animals in a frozen embryonic state for long periods of time. The method might be adaptable to breeding domestic animals. Certainly, from a scientific standpoint this marks a great advancement in future animal breeding. I am reminded, when reading the report, of two quotations:† "It is a wise child that knows his own father." (Homer, Odyssey I: 216), and "Maternity is a matter of

* Leonard, Claire O., *et al.*: Genetic counseling: consumer's view. New Eng. J. Med., 287:435-439, August 31, 1972.

† Straus, Maurice B.: Familiar Medical Quotations. Boston, Little, Brown and Company, 1968.

fact—paternity a matter of speculation." Let us sincerely hope that test-tube babies remain in the world of laboratory animals; that no mad scientist ever becomes compelled to attempt this type of experiment with human ova.—M.E.A.

ON AGING

Our population is increasing in its proportion of elderly people. Newer ways of prolonging life, rescuing older citizens from many physical and mental ravages of the past, have created social problems of increasing importance and magnitude. Society's awareness of the needs of the aged is increasing rapidly in many areas because of governmental social security, medical care, retirement homes, Golden Age Clubs, etc.

Aging can be an unsuccessful venture in life —fraught with unhappiness, insecurity and chaos. Yet, with planning and good management principles, aging can be a positive and enriching process.

A symposium in CLINICAL MEDICINE, August, 1972, presented some excellent principles for successful aging—10 important parameters to promote and enhance the security and happiness of the aged person. They are worth repeating, for each of us must face the future, and if we plan properly, that future can be much more worthwhile. And contrary to popular belief financial security is not the one and only criterion. The principles of successful aging proposed by Duffy* and Danish† are:

1. **Good health practices, including non-smoking and non-obesity.**
2. **Alertness of mind.**
3. **Involvement in some kind of life growth process.**
4. **Adjustment to the institutional life of a retirement home.**
5. **A sense of humor.**
6. **Residential security.**
7. **Financial security.**
8. **Some form of outside activity.**
9. **Intact senses.**
10. **A hobby with a product.**

How do these principles strike you, doctor? Are you concerned mostly with point 7—financial security? Have you watched the weight, quit smoking cigarettes, maintained a sense of humor, become involved in an ongoing program of outside activity? Have you developed a hobby with a resultant tangible substance? Don't wait until you are aged to plan. Start the program now. It may be later than you think. —M.E.A.

* Duffy, Edward L.: Some psychologic aspects of successful aging. Clinical Med., **79**:22-24, August, 1972.

† Danish, Mary: Social worker's impression of successful aging. Clinical Med., **79**:25-27, August, 1972.

THANKSGIVING 1972

There is much the citizens of this country have to be thankful for. Much however is merely taken for granted. It's obviously appropriate at this season to reflect on the blessing of progress; it can be measured dramatically in the health field.

A great majority of Americans are physically quite healthy, a larger proportion of American babies survive their first year of life than ever before, and an unprecedented number of Americans are now surviving to their 70s, 80s, and beyond.

In the decade (1961-1971) between two White House Conferences on Aging, the number of people 65 years or older increased from 16.6 million to 20 million. The nation's overall population in the past century increased five times, while the number of persons 65 years or older increased 17 times.

Various factors account for this, e.g., public health measures, the discovery of antibiotics, advanced surgical procedures, etc. As you pause to observe Thanksgiving 1972, attempt to make your patients mindful of the blessings which are ours.

University Drug Letter

by EDWARD E. MASON, M.D.

CENTRAL VENOUS NUTRIENT—CVN

If 150 gm glucose per day (600 Calories) is provided, this will reduce nitrogen loss by tenfold over the loss with acute starvation. Positive nitrogen balance requires 30 Calories/kg or more, plus amino acids, and can be induced by the use of central venous nutrient. This solution, as implied in the name, should be given into a large central vein where rapid mixing with blood will reduce the risk of hyperosmotic injury to the endothelium, thrombosis and phlebitis.

There are two solutions available, both with one Calorie per ml as well as 30 mEq/l sodium, 15 mEq/l potassium, 12.5 mEq/l calcium, 19.6 mEq/l chloride, 4.2 mEq/l magnesium and 24.6 mEq/l phosphate. The *pediatric* solution contains 2.5 per cent casein hydrolysate and the *adult* solution contains 4 per cent. The bulk of calories comes from glucose which is in a concentration of 24.4 per cent in the pediatric and 23 per cent in the adult solutions. Infants do not tolerate the higher concentration of amino acids. Usually 40 mEq/liter of potassium are added. Once a day multiple vitamins B and C are added. Vitamin K is given twice weekly, folic acid twice a month and B_{12} monthly. Essential fatty acids and trace substances are supplied by administration of a unit of plasma once or twice a week.

Central venous nutrient is usually administered through a subclavian catheter inserted with all of the skin preparation, sterile gown, gloves, cap, mask and special technical considerations of a formal operative procedure. A micropore filter is attached to the catheter, sterile intravenous tubing is attached to the filter and the dressing and couplings are left intact until time for sterile dressing change, which is performed at least twice weekly. Blood transfusions must be given by some other venous site. Administration of medications and measurements of central venous pressure through the subclavian catheter opens the system to contaminants and will increase the risk of sepsis. Fever requires culture of blood and urine and usually removal of the catheter. In patients who have received multiple broad-spectrum antibiotics, candidemia may occur. Removal of the catheter may correct this except in the debilitated patient. Continued sepsis requires specific treatment, and for candidemia a course of Amphotericin B with monitoring of the renal toxicity or flucytosine. Roentgenographic proof of the proper placement of the catheter will decrease the risk of thrombosis of jugular vein, injury to the myocardium, pneumothorax, hydrothorax and hemothorax.

In order that optimum use can be made of CVN, there should be an early correction of specific deficiencies of potassium, magnesium, phosphate, red blood cell volume and plasma albumin concentration by administration of these items. Central venous nutrient should initially be administered at a rate of only 50 ml per hour, especially in the debilitated patient, as hyperglycemia, glycosuria and dehydration may occur. Mental confusion and even death have been reported from attempts at too-rapid correction of the Buchenwald type of malnutrition. A sudden lowering of serum phosphate may herald impending death, but prevention requires caution and time rather than the administration of any specific single ion or substrate. Rebuilding of ribosomes, enzymes and subcellular organelles requires time as well as nutrients. Pseudodiabetes, following severe traumatic or burn injury, also requires caution in the use of hyperosmotic nutrient solutions.

There is an inverse relationship between age and the tolerable rate of infusion. As much as 3,500 ml per day may be utilized by a young adult, whereas 2,000 ml may be the limit tolerated for an elderly patient. Liver and kidney disease are indications for maintaining good nutrition, and even patients with hepatic coma may benefit from CVN if it is given slowly enough so as not to raise general body fluid osmolality. Insulin should be given subcutaneously on a sliding scale if glycosuria appears providing the renal threshold for

Dr. Mason is a professor in the Department of Surgery at The University of Iowa College of Medicine. This discussion appeared initially in the April, 1972, issue of DRUG LETTER, a monthly intramural publication of University Hospitals prepared jointly by the Pharmacy Department and the Clinical Pharmacology Committee.

A·H·ROBINS

For the patient with a terminal illness, PAIN past, present, and future can dominate his thoughts until it becomes almost an obsession. The more he is aware of the pain he is now experiencing, the more difficult it is to erase his memory of yesterday's pain, and to allay his fearful anticipation of tomorrow's pain. Surely the last thing this patient needs is an analgesic containing caffeine to stimulate the senses and heighten pain awareness. A far more logical choice is Phenaphen with Codeine. The sensible formula provides ¼ grain of phenobarbital to take the nervous "edge" off, so the rest of the formula can help control the pain more effectively. Don't you agree, Doctor, that psychic distress is an important factor in most of your terminal and long-term convalescent patients?

the analgesic formula that calms instead of caffeinates

Phenaphen® with Codeine

Phenaphen with Codeine No. 2, 3, or 4 contains: Phenobarbital (¼ gr.), 16.2 mg. (warning: may be habit forming); Aspirin (2½ gr.), 162.0 mg.; Phenacetin (3 gr.), 194.0 mg.; Codeine phosphate, ¼ gr. (No. 2), ½ gr. (No. 3) or 1 gr. (No. 4) (warning: may be habit forming).

Indications: Provides relief in severer grades of pain, on low codeine dosage, with minimal possibility of side effects. Its use frequently makes unnecessary the use of addicting narcotics. **Contraindications:** Hypersensitivity to any of the components. **Precautions:** As with all phenacetin-containing products, excessive or prolonged use should be avoided. **Side effects:** Side effects are uncommon although nausea, constipation and drowsiness may occur. **Dosage:** Phenaphen No. 2 and No. 3—1 or 2 capsules every 3 to 4 hours as needed; Phenaphen No. 4—1 capsule every 3 to 4 hours as needed. For further details see product literature.

(III) Phenaphen with Codeine is now classified in Schedule III, Controlled Substances Act of 1970. Available on written or oral prescription and may be refilled 5 times within 6 months, unless restricted by state law.

A. H. Robins Company, Richmond, Virginia

glucose is normal. Blood sugar levels should be measured at any time that the urine sugar is 4+ and in patients with a known high renal glucose threshold. Osmotic diuresis and dehydration occur only when the solution is given more rapidly than it can be utilized. When used properly the only solutes left over are the electrolytes and a small amount of urea.

The nutrient should be run at a constant rate. If for some reason the amount given falls behind the amount ordered, the nurses should be cautioned not to try to catch up by more rapid infusion, as this may cause an osmotic diuresis and dehydration. If for some reason the infusion is suddenly stopped, hypoglycemia is likely, and correction of the cause of the stoppage is therefore urgent. The infusion rate should be reduced slowly over 12 to 24 hours, to allow time for a decrease in insulin secretion when use of CVN is to be terminated.

CVN use is expensive and potentially hazardous. It should be reserved for patients who cannot take nourishment by oral, gavage or enterostomy routes and whose health is threatened by present or pending malnutrition. Protein-calorie malnutrition can be recognized by history of abnormal diet, weight loss, anemia, lowered serum-albumin concentration, nutritional edema, reduced metabolism, lowered cardiac output, slow pulse, low blood pressure, weakness, dizziness, ileus, steatorrhea, nausea, anorexia, poor wound healing and "skin and bones cachexia." It is less easily recognized in obese patients with prolonged inadequate protein intake. CVN promotes growth and normal wound healing and in selected patients reduces hospitalization time and risk of death. It should not be used for those in whom starvation is limited to a short period; seven-ten days.

REFERENCES

The author has prepared a bibliography to accompany this discussion. It will be provided on request by either the author or the JOURNAL OF THE IOWA MEDICAL SOCIETY.

STATE DEPARTMENT OF HEALTH

(Continued from page 579)

test for syphilis at the time of diagnosis. Patients receiving the recommended parenteral penicillin schedule need not have follow-up serologic tests for syphilis. Patients treated with ampicillin, spectinomycin, or tetracycline should have a follow-up serologic test for syphilis each month for 4 months to detect syphilis that may have been masked by treatment for gonorrhea.

Patients with gonorrhea who also have syphilis should be given additional treatment appropriate to the stage of syphilis.

While long-acting forms of penicillin (such as benzathine penicillin G) are effective in syphilotherapy, they have **no** place in the treatment of gonorrhea.

RADIOLOGY WINDOW

CASE NO. 7

(Continued from page 582)

These patients all exhibited a polypoid tumor of the colon which histologically represents a villous adenoma. Figure 4 demonstrates another example in more detail. A villous adenoma is distinct in its morphology and behavior from the common benign colon polyp and is considered by many to be just bordering an actual cancer. Villous adenomas are more apt to be found in the older age groups and typically appear to arise directly from the mucosa over a broad and speading base. Their densely packed epithelial fronds resemble the villi of the small intestinal mucosa and the tumor is characteristically soft and friable, often being so pliable as to escape detection by the examining finger on rectal examination.



Figure 4

It is the consensus of most pathologists that malignant changes are much more often found in villous adenomas than in common colon adenomatous polyps. The mucoid diarrhea at times associated with villous adenomas may amount to as much as three or four liters daily and is so rich in sodium, chloride, and especially potassium that its loss may result in an appreciable fluid and electrolyte change. The configuration of a villous adenoma on a colon x-ray occurring proximal to the rectum may be sufficiently characteristic as to permit a preoperative diagnosis based on lack of infiltration in adjacent bowel wall, the mottled surface pattern, and variations in size and shape of the lesion. Villous adenomas are notorious in their tendency to recur locally after excision and follow-up examination is indicated at intervals of three to six months.

EMPHASIS ON CONSUMER AT NOVEMBER PARLEY

A Members Educational Conference will be presented by the Iowa Health Council on Sunday, November 16, at Johnny and Kay's Hyatt House in Des Moines. Theme of the Conference will be "Sharing the Common Goal: Serving the Consumer."

Speakers include C. H. William Ruhe, M.D., Director, Division of Medical Education, American Medical Association; State Representative Willard R. Hansen, Cedar Falls; Carl G. Gustafson, Administrative Director, Foundation for Health Care Evaluation, Minneapolis; Hugh W. Brenneman, Executive Director, Michigan Association of the Professions, and Drake Mabry, Assistant Managing Editor, DES MOINES TRIBUNE.

The Iowa Medical Society is one of nine organizations which comprise the Iowa Health Council. The Conference will convene at 9:30 a.m. and adjourn at 3:15 p.m. The session is open to all interested physicians.

Doctor's Business

by LARRY E. LEAVERTON

IS YOUR PATIENT HISTORY ADEQUATE?

We often wonder how some physicians make sense of the mass of paper and scribbled notes that accumulate in their patient histories. The problem is compounded in group practice where one physician may see the patient of another, or when a patient transfers to another physician and requests his history be transferred to that physician.

Fifteen or 20 years ago a popular record system involved stuffing small slips into 3x5 envelopes after each visit. To review a patient history the physician had to sort through all of the slips. The larger 9x12 file folder is now pretty standard but its manner of use still has drawbacks. Much paper shuffling is still necessary to find needed information. In many cases, correspondence, lab and X-ray reports, and copies of insurance information are mingled with preliminary information and notes on follow-up visits.

Two concepts new to some physicians have appeared in recent years. These are the problem oriented medical history and the patient history questionnaire.

The problem oriented history concept involves a listing in the front of the chart of all of the patient's problems. Advocates claim the key to continuing care is information. Knowing the patient's problems, what has been done to correct them, and the patient's response are vital in any systematic approach. Without this information readily available, a physician can spend years treating acute episodes and still not provide the total management the patient needs. In a problem oriented record system you start with a broad data base, a problem list, a plan for each problem and continuing progress notes oriented to each problem. A standard size file folder is used with orderly printed information on the jacket. It is designed so the physician can see all patient problems and medications at a glance. The follow-up records are clipped firmly and neatly in an organized sequence to reduce the risk of loss. The essential ingredient is the form or structure of the progress notes. They are titled and numbered according to the patient's problem list.

The patient history questionnaire is receiving attention as an aid to the information gathering which is necessary and which is the starting point. Patient history questionnaires range from a simple list of basic information questions to very sophisticated questionnaires which use branching techniques with complete computer printouts. Advocates claim it is an adjunct or extension of the oral history, not a substitution—a fact misunderstood by many physicians and patients. A fear many doctors have in using a printed questionnaire is that they will be accused of lack of interest or personal attention. The patient should always understand the questionnaire is a supplement, not a substitute, to the doctor-patient interview. The advantages are in increased efficiency through the use of the patient's and the medical assistant's time, all to increase the productivity of the physician. We know of a physician who said he could do a superb job with complete physicals if he did only three or four a day, but in doing this he would be doing an extremely poor job of meeting the health needs in his community. A prominent internist once allowed about 80 minutes for a complete history and physical examination. He claims through a programmed medical history he can save 20 to 25 minutes with no sacrifice in the quality of care.

A common argument against changing or improving present histories is lack of time. Is this a legitimate argument against keeping patient data in order? If an office is already using standard sized file folders and does not want to make a complete change the history files can be improved by instructing the medical assistant to sift through the files transferring information from loose slips to the file jacket in an orderly manner in abridged form. Retiring inactive histories to storage files on a regular basis is another suggestion. If you have a problem of misplaced files, color coding may be an answer. If a change in case history types is decided on it is not necessary that the entire system be changed. It can be transferred gradually with new patients and old patients as they come in.

Finally, a complete orderly patient case history can be the best defense in a possible malpractice suit.

Mr. Leaverton is Director of Research and Development for Professional Management Midwest.

IOWA Specialty Groups

Editor's Note: *This feature is provided as a service to the specialty organizations which are active in Iowa. We invite the officers of Iowa specialty groups to submit information for use on this page.*

IOWA ACADEMY OF FAMILY PHYSICIANS . . . Dennis J. Walter, M.D., Des Moines was installed as president of the Academy at its recent annual meeting. Tapped for other offices were C. P. Hawkins, M.D., Clarion, president-elect; J. M. Hennessey, M.D., Manilla, vice-president; G. A. Kern, M.D., Des Moines, secretary-treasurer; Reuben Widmer, M.D., Iowa City, and Keith Garber, M.D., Corydon, directors; W. A. Castles, M.D., Dallas Center, AAFP delegate, and R. F. Frech, M.D., Newton, AAFP alternate delegate.

IOWA CHAPTER, AMERICAN COLLEGE OF SURGEONS . . . Chapter will meet Saturday, December 2 in Des Moines at Johnny & Kay's Hyatt House. The subject of peer review will be examined. Members of all other surgical societies are invited to attend.

IOWA OBSTETRICAL AND GYNECOLOGICAL SOCIETY . . . A postgraduate course on December 6 and 7 is being co-sponsored by the Society and the College of Medicine. It will occur in Iowa City. A meeting of the Society will be presided over by Richard Moore, M.D., Des Moines, the current president.

IOWA CLINICAL SOCIETY OF INTERNAL MEDICINE . . . Annual fall meeting of the Society will occur Saturday, December 2, in Iowa City. The Society's Executive Council will meet the preceding evening.

IOWA ASSOCIATION OF PATHOLOGISTS . . . The Association is involved currently in the implementation of a new program for quality assurance of clinical laboratory results in Iowa. The program has undergone testing and development by the Wisconsin and Iowa Associations and will be operated on a two-state basis beginning in 1973. It is adaptable—based on needs and desires—to clinical laboratories of all sizes—in a hospital, a clinic or single physician office, according to W. S. Pheteplace, M.D., president of the Iowa Association of Pathologists.

IOWA CLINICAL SURGICAL SOCIETY . . . Meeting this month (November 2, 3 and 4) at the Mayo Clinic in Rochester, Minnesota are members of the Iowa Clinical Surgical Society. Tours of several hospitals are scheduled.

IOWA RADIOLOGICAL SOCIETY . . . Fall postgraduate conference co-sponsored by the Iowa Radiological Society occurred October 21 at the Memorial Union in Iowa City. Informal refresher courses were available to the conference participants.

SPORTS MEDICINE PARLEY SET FOR DECEMBER 8-9

"New Directions in Sports Medicine" will be the theme of a Symposium and Workshop to be presented December 8 and 9 in Iowa City under the principal sponsorship of the Midwest Chapter of the American College of Sports Medicine.

Faculty for the two-day program will include physicians from Minnesota, Texas, Wisconsin and Washington. Subjects to be considered include *Coronary Blood Flow Changes During Strenuous Exercise, Hemodynamic Changes, Respiratory Consideration, Biochemistry of Muscle, Liver Function During Exercise, Artificial Turf Injuries, Psychological Aspects* and *Temperature Regulation.*

In addition to sponsorship assistance by various departments of The U. of I., the Scanlon Medical Foundation/Iowa Medical Society has assumed a partial support role.

Registration for ACSM members and student members will be $22.50 and $10, respectively. For non-members, the fee will be $32.50. For additional information, contact Charles M. Tipton, Ph.D., Exercise Physiology Laboratory, University of Iowa. Telephone—319/353-5708.

THANKSGIVING SALUTE TO HEALTH LEADERSHIP

LEADERSHIP IS that important and intangible ingredient without which an organization, any organization, is most likely to flounder. To ward off the *flounder* syndrome one has to confront the challenge of identifying and enlisting those astute and conscientious individuals who'll assume and carry out the important leadership assignments.

Whatever and wherever the organization, be it the PTA, the Kiwanis, the City Council, the Chamber of Commerce, or the Iowa Medical Society, it will rise or fall, succeed or fail, to a significant degree, in direct relation to those who serve in the elective or appointive positions of responsibility. Where good leadership is present, the assurance of positive performance is enhanced mightily.

This month we offer our *In The Public Interest* feature as a Thanksgiving salute to those individuals who hold key leadership posts at the state level in the medical, or more broadly, the health field. Iowans should know of and be thankful for the presence of the persons noted on these pages, they perform a valuable service. Obviously, there are others not named here who are Iowa health care leaders, and they too deserve our thanks at this season of the year.

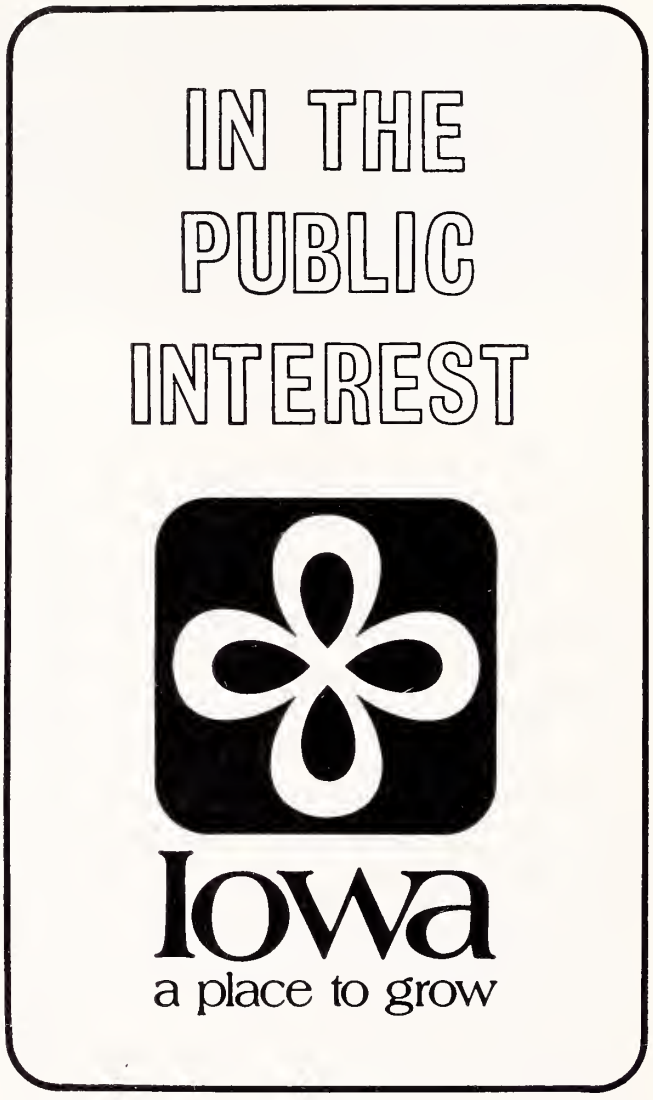
The readers of this feature either will know or would assume correctly that the medical profession is organizationally arranged with leadership required at various levels and locations. At the local level physicians accept responsibility within the county medical society, the hospital medical staff, the county board of health, etc.

IOWA STATE BOARD OF MEDICAL EXAMINERS

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As regards the county medical societies, they are separate and distinct entities, but they are also chartered components of the Iowa Medical Society. Membership in the Iowa Medical Society requires that a physician (1) have the specified educational training; (2) be licensed in Iowa (a function of the Board of Medical Examiners), and (3) be a member of his county medical society. To be an officer of the Society a physician must be nominated and elected by his peers.

The Iowa Medical Society has an ongoing interest and is an active participant in a myriad of health related projects at the State level. These activities extend in a variety of directions but, in each case, the protection of the health and best interests of the people of Iowa remains fundamental.



The Society is established so as to enable its individual physicians to apply democratic principles in the fulfillment of the organization's humanity-serving purposes. The legislative arm of the Society bears the name House of Delegates. Its principal membership is provided by the constituent county medical societies. Each county is entitled to one delegate for every 25 county society members, or major fraction thereof. The House must meet at least once each year and provision now exists for two meetings annually. Society policies are determined by this House of Delegates.

Those physicians (named here) who comprise the Executive Council are regarded as the Society's principal officers. This Council is given the power and authority of the House of Delegates during the interval between House meetings. It consists of 12 District Councilors, the eight members of the Board of Trustees, the Speaker of the House, the AMA Delegates, the Blue Shield Liai-

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Commissioner of Health & Secretary of Board

son Delegates to the IMS, and the Immediate Past President.

Furthermore, the Executive Council is the arm of the Society assigned to communicate the views of the profession on the various important health matters of the day. It is empowered to establish working relations with other agencies, to formulate joint programs, and to promote activity to increase the adequacy, efficiency and distribution of applied medical science in the State.

The IMS Judicial Council has the 12 District Councilors as its members. This Council hears and resolves matters concerning ethics and discipline, including questions regarding membership. Each of the Council members represents a geographical division of the State.

The Board of Trustees exercises the executive powers of the Iowa Medical Society. It is responsible for the employment and general supervision of staff personnel. It oversees the financial affairs of the Society, and is responsible for the acquisition, disposition and maintenance of property, subject to general instruction from the House of Delegates. The Board meets once a month, or oftener, and it employs an executive vice-president to conduct day-to-day business.

By way of summary, it is easy to recognize that effective leaders are essential if these organizational components of the IMS are to function effectively. Just as necessary are astute leaders to serve The University of Iowa College of Medicine, on the State Board of Medical Examiners and on the State Board of Health.

The specific purposes of the Iowa Medical Society are 10 in number. The first three are particularly germane to this discussion inasmuch as they describe in a real sense not only what the Society strives to do, but they also speak to the mission of the other agencies:

(1) To promote, extend, elevate and advance medical science and medical knowledge.

(2) To advocate such measures as will tend to alleviate the sufferings, improve the health and protect the lives of human beings.

(3) To promote the science and art of medicine and the betterment of public health.

To these goals the leaders of Iowa health care delivery must and do direct their energy and skill. The Season of Thanksgiving is an appropriate one to acknowledge with gratitude the past, present and future leadership which has, does and will serve the State of Iowa in this vital area.

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About IOWA Physicians

Dr. Howard C. Pomeroy has opened an office for the practice of urology in the Medical Arts Building at Fort Dodge. Dr. Pomeroy completed his premedical training at El Camino College and UCLA. He was graduated from the Yale Medical School in 1964 and completed a residency in surgery at Upstate Medical Center, Syracuse, New York. He took a urology residency at Yale-New Haven Hospital, New Haven, Connecticut and Misercordia-Fordham Hospital, Bronx, New York. During the past three years, Dr. Pomeroy has practiced urology in Bismarck, North Dakota. Dr. Pomeroy is certified by the American Board of Urology.

Dr. George A. Paschal has resumed his medical practice in Webster City. Dr. Paschal resigned last March from the staff of the Veterans Administration Hospital in Des Moines. He was at the VA Hospital for nearly two years. He practiced medicine in Webster City from 1946 to 1970.

Dr. C. Adrian Hogben, professor and head of physiology and biophysics at The U. of I. College of Medicine, was a special guest of the Alfred Benzon Foundation in Copenhagen, Denmark, from September 11-15. Dr. Hogben presented a paper entitled, "Transport Mechanisms in Epithelia," at a symposium and also served as chairman of one of the scientific sessions held at the Royal Danish Academy of Sciences and Letters.

Dr. M. E. Collentine, of Davenport, was guest speaker at a recent meeting of the Scott County Chapter of the American Association of Medical Assistants in Davenport. Dr. Collentine's subject was "Noise Pollution: Hearing Problems Common to Children."

Dr. James A. Clifton, professor and head of the Department of Internal Medicine at The U. of I. College of Medicine, was banquet speaker at a recent South Dakota Regional Meeting of the American College of Physicians. Dr. Clifton is a Regent of the College.

Dr. Ross Madden, an internist, has joined Medical Associates in Dubuque. A graduate of The U. of I. College of Medicine, Dr. Madden completed his residency in internal medicine at the Valley Medical Center in Fresno, California, and served two years with the United States Air Force.

Dr. Cornelius B. Murphy, of Alton, was honored recently at a public program and reception in recognition of his 36 years as a physician and surgeon in Alton. Dr. Murphy retired from active practice in July 1972. A 1931 medical graduate of the University of Minnesota, Dr. Murphy completed his internship and residency at Minneapolis General Hospital. He has served as city health officer in Alton since 1935, is a member and past president of the Rotary Club and Chamber of Commerce, and vice president of the Alton Area Development Corporation.

At the recent annual meeting of the Black Hawk County Chapter of the American Cancer Society, **Dr. C. W. Seibert,** of Waterloo, was presented a citation of appreciation for his long and dedicated service to the organization. The occasion marked the 25th anniversary of the county chapter. Dr. Seibert is a charter member and has been a board member for 25 years. He was President of the Iowa Cancer Society in 1958 and has served on a number of state committees. **Dr. Howard Latourette,** professor of radiology at The U. of I. College of Medicine, was the meeting's featured speaker.

Dr. Russell Watt, a Marshalltown ophthalmologist, served as Marshall County sight saving chairman for the Iowa Society for the Prevention of Blindness for the organization's September sight-saving month. Dr. Watt is a member of the Society's board and also serves on the medical advisory committee.

Dr. L. H. Prewitt, of Ottumwa, proposed a unique highway safety education program in a recent article written for the OTTUMWA COURIER. In the newspaper feature, Dr. Prewitt suggested special courtesy education cards be mailed to a safety council by any citizen who observes a driving violation. Measures to reach persistent violators are then implemented by the safety council.

Dr. Carl A. Jacobs, a Sioux City surgeon, moderated a recent panel discussion on "Malignancy of the Breast," presented for and sponsored by the Iowa Academy of Surgery at University Hospitals in Iowa City. Other panel members included **Drs. John MacGregor,** of Mason City; **F. Dale Wilson,** of Davenport; and **William Yetter,** of Iowa City.

Dr. A. M. Dolan, of Evansdale, spoke on drug abuse at a recent meeting of the Association of Operating Room Nurses of North Central Iowa at St. Francis Hospital in Waterloo.

Dr. Lewis E. January, professor of internal medicine at The U. of I. College of Medicine, was a visiting professor at Ain-Shams University, Cairo, Egypt, during the first week of October. Dr. January lectured at the medical college, which has an enrollment of 500 students in each class, and participated in teaching rounds. Dr. January is past president of the American Heart Association and since 1971 has been chairman of the AHA Committee on International Programs. He also is vice president of the International Cardiology Federation and enroute to Egypt attended a meeting of its executive committee in Madrid, Spain.

At the September meeting of the Wright County Medical Society, **Dr. Howard C. Pomeroy,** a Fort Dodge urologist, spoke on "Radiological Diagnosis of Uropathies."

Dr. Edgar Boone Wilcox, of Oskaloosa, was recently honored on his 95th birthday by family and community friends. Dr. Wilcox attended William Penn College and received the M.D. degree at the University of Kentucky. In June 1970, he was awarded a plaque and the Doctor of Science degree. He was recognized for being the oldest living graduate of William Penn College. Dr. Wilcox is the oldest medical doctor in Mahaska County and a life member of the Iowa Medical Society.

Dr. Hormoz Rassekh, of Council Bluffs, welcomed six new physicians to the community at the September meeting of the Pottawattamie-Mills County Medical Society. The newcomers are—**Dr. Chris Birusingh,** a general surgeon; **Dr. John Kilbridge,** pathologist; **Dr. Kanchan Lodhia,** anesthesiologist; **Dr. Ronald Miller,** orthopedic surgeon; **Dr. Behrouz Rassekh,** neurosurgeon; and **Dr. Fernando Rivera,** general surgeon.

Dr. B. R. Withers, of Waukon, was elected president of the Allamakee Community School District's Board of Education at a special reorganizational meeting of the Board.

A heart attack suffered by a physician working in an Ethiopian hospital and a resulting plea for help were responded to by an Iowa doctor this summer. **Dr. Glenn Widmer,** of Wayland, agreed to serve as a temporary replacement for the disabled physician. This decision led to a trip for the Widmer family to Kenya, Switzerland, Italy, France and Ireland. Arrangements for Dr. Widmer's medical service were made through the Mennonite Mission Board. He served a hospital located in Nazareth. The training program established for the native staff particularly impressed Dr. Widmer. He was especially interested in the dresser, an individual who has four years of training, can dispense drugs and do suturing, and sees all the patients at the clinic first. The doctors see only the cases referred to them by the dressers, a method which makes it possible to function with a limited number of medical personnel. The Widmers spent about three weeks at the hospital compound and three more in Europe.

The following Iowa physicians have been named diplomates of the American Board of Family Practice—**Dr. Thomas J. Carroll,** of Sibley; **Dr. W. H. Verduyn,** of Reinbeck; **Dr. Stanley M. Haugland,** of Lake Mills; **Dr. John W. Barnes,** of Missouri Valley, and **Dr. James D. Kimball,** of Osceola.

At the recent annual meeting of the American Cancer Society in Des Moines, **Dr. R. E. Weland,** of Cedar Rapids, presented a program on education and information, and **Dr. C. H. Denser, Jr.,** of Des Moines, moderated a program on Reach to Recovery.

Six Clarinda physicians are participating in a new community adult education seminar on aspects of health. **Drs. Earl Zehr, K. V. Jensen, H. S. Frenkel, W. G. Kuehn, Marshall Sonesen, John Gambill** and **John Martin** will lecture on medical matters of personal, public and social con-

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cern. The topics to be discussed include physical exams, diets, self examination and medication, venereal disease, the government and third party roles in medicine, benefits and pitfalls of health insurance, drugs and alcohol, mental health, social problems and "the ultimate condition of death and dying."

Dr. Mary Couchman, formerly of Mt. Pleasant, and **Dr. Reuben Widmer,** of Winfield, have been appointed to the faculty of The U. of I. College of Medicine. Both physicians have assumed the rank of assistant professor and are in the Family Practice Department.

Dr. Beryl Michaelson, of Dakota City, is taking a six-month leave of absence from her medical practice beginning October 10.

Dr. Dorothy Ehmke, assistant professor in the cardiology section of the Department of Pediatrics at The U. of I. College of Medicine, was the guest speaker at a recent pediatric cardiac conference in Dexter. Subject of the conference was "Cardiac Auscultation and Cardiac Examination in Children." The program was sponsored by the Iowa Regional Medical Program in cooperation with the Dallas-Guthrie County Medical Society.

Dr. Warren Nash, of Waterloo, was recently elected president of the Creighton University Waterloo Alumni Chapter.

The following Waterloo physicians have moved into the newly constructed Professional Practice Building—a doctors' office addition adjacent to St. Francis Hospital in Waterloo which will accommodate about 30 physicians. They are as follows—**Drs. T. F. Thornton, Jr., Robert C. Miller, Orrin Hall, Dwight Conklin, Otto Della Maddalena, James Jeffries, John R. Moes, Albert Dolan, C. P. Addison, Arthur Woodward, Richard Long** and **William Stone.**

Two Fort Madison physicians, **Dr. John McGee** and **Dr. F. T. Aledia** attended the annual meeting of the American Cancer Society in Des Moines. Dr. McGee is a past chapter chairman of the North Lee County Cancer Society and Dr. Aledia is the present chapter chairman.

Dr. Richard McKay, of Waterloo, served as Black Hawk County Sight Saving Chairman for the Iowa Society for the Prevention of Blindness

during September sight-saving month. Dr. McKay is a member of the Society's board and also serves as vice chairman of the medical advisory committee.

Dr. William Kettlekamp, of Cedar Rapids, was a guest speaker at a recent local workshop on venereal disease. The Linn County Medical Society assisted in sponsoring the event.

At the Iowa Society of Radiologic Technologists convention in Waterloo, **Dr. Richard Long,** a Waterloo physician, discussed kidney dialysis and transplants. **Dr. Maurice Wicklund,** also of Waterloo, and president of the Iowa Radiological Society, attended the meeting.

Dr. Charles D. Phelps, son of **Dr. and Mrs. Gardner D. Phelps,** of Waterloo, has been appointed to the faculty of The U. of I. College of Medicine in Iowa City. Dr. Phelps, like his father, is an ophthalmologist. He won a merit scholarship at The U. of I., where he was also named to Phi Beta Kappa, national scholastic honorary fraternity, and Phi Eta Sigma, national scholastic honorary society for men. He was graduated with honors from The U. of I. College of Medicine and interned at Boston, Massachusetts City Hospital.

Dr. John E. Gustafson and **Dr. Richard C. Porter,** both of Des Moines, and **Dr. Donald Dalbey,** formerly in military service, will staff the new Adair Medical-Dental Clinic. Dr. Gustafson is in charge of the emergency room at Iowa Methodist Hospital and previously was in the private practice of pediatrics in Des Moines. Before joining Dr. Gustafson on the emergency room staff at Iowa Methodist Hospital, Dr. Porter practiced general medicine in Des Moines. Dr. Dalbey is the son of **Dr. Glenn Dalbey,** of Traer. A graduate of The U. of I. College of Medicine, Dr. Dalbey served his internship at the Upstate Medical Center at Syracuse, New York. He was in the United States Navy for two years.

Dr. F. W. Bennett, of Marion, has terminated his practice of medicine in Marion to become assistant director of medical education for the Family Practice Program at St. Luke's and Mercy Hospitals in Cedar Rapids.

The following Iowa physicians were named fellows in the American College of Surgeons during the recent Clinical Congress of the organization in San Francisco—**Dr. William P. Wellington,** Des Moines; **Dr. William H. Baker, Dr. Herbert J. Buchsbaum, Dr. Stanley W. Greenwald, Dr. Charles E. Hawtrey, Dr. Lowell A. Luhman, Dr. Joseph D. Schmidt, Dr. Robert R. Taube,** all of Iowa City; **Dr. Donald D. Van Etten,** Mason City, and **Dr. Francis L. Coyle,** Waterloo.



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DEATHS

Dr. Leland E. Stilwell, 79, a fromer U. of I. College of Medicine professor, died September 21 at Eugene, Oregon. Dr. Stilwell served as director of the Veterans Hospital in Iowa City from its opening in 1952 to his retirement in 1959. He was also a professor of clinical obstetrics and gynecology at The U. of I. College of Medicine. A 1923 medical graduate of Columbia University, he was on the faculty of the University of Southern California Medical School prior to coming to Iowa City. A diplomate of the American Board of Obstetrics and Gynecology, Dr. Stilwell was also a member of the American Medical Association, Association of Military Surgeons, American College of Hospital Administrators and the American Philatelic Society. He was a veteran of World Wars I and II and a retired colonel in the U. S. Army.

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Medical Assistants

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AMES SEMINAR

An educational seminar sponsored by the Iowa Chapter, American Association of Medical Assistants, was held September 9-10 at Holiday Inn, Ames, Iowa. Sixty medical assistants from across Iowa attended.

Mrs. Marcine Sanders, CMA, Davenport, President, AAMA, State of Iowa, opened the seminar. Dr. Thornton Bryan of the Department of Family Practice at the University of Iowa discussed medical records and showed examples of the "Problem Oriented Medical Record." Dean Gesme, a medicolegal consultant, described various legal matters which may confront a medical assistant.

The seminar also included a terminology quiz conducted by Shirley Muehlenthaler of Des Moines and Mrs. Dickson, Burlington, and a presentation on "Certification" by Mrs. Jeanne Green, CMA, Davenport. Of particular interest was a presentation entitled the "New Programming of Blue Shield" given by John Larson, Blue Shield representative.

Mrs. Phyllis Pederson, CMA, Lake Mills, was the seminar chairman. Mrs. Frances Cates, Mason City, was co-chairman.

HOW TO ABSTRACT A RECORD

With increasing requests from insurance companies, state and federal agencies, social agencies, etc., abstracting of the medical record has become increasingly important. Abstracts are used for scientific purposes, as reports to attorneys and as case reports at staff meetings. The responsibility for selecting essential points in a medical document and transmitting it to others should certainly not be taken lightly. Such abstracts should be checked carefully and edited by the physician. Remember that under no circumstances should a medical assistant assume or give the appearance of assuming the right to make determinations in professional areas outside the scope of assigned responsibilities.

In this connection, you may be interested in the following question and answer which appeared in the April, 1960 Law Forum Section of HOSPITAL PROGRESS, as edited by William A. Regan, Attorney-at-Law.

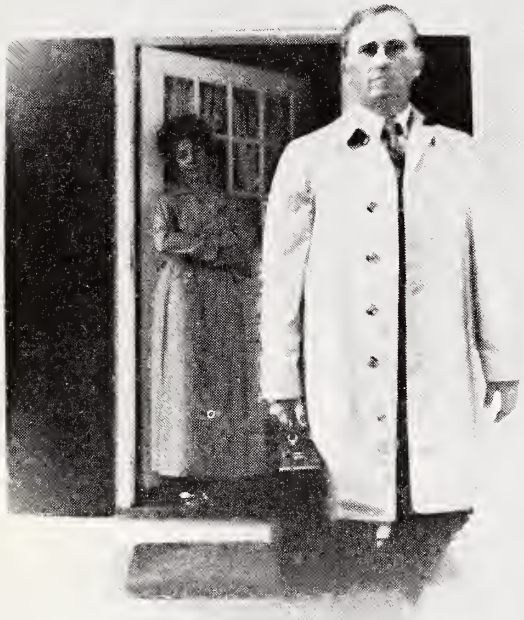
Question: When we receive properly authorized requests from attorneys and others for copies of patients' charts, it is our practice to send an abstract or discharge summary. Does this practice expose us to the legal criticism of being selective regarding the information which we make available in compliance with such requests?

Answer: The criticism leveled upon the one transmitting information to the effect of being selective in providing information requested with proper authorization depends entirely upon who prepared the abstract or discharge summary. If the abstract is a compilation of certain parts of the patient's chart selected for transmittal in the abstract, the criticism would be completely warranted. On the other hand, if an abstract of the patient's chart is prepared by a physician who can make the proper evaluation of the record and thereafter prepare a coherent and medically valid synopsis, such an abstract or discharge summary is an adequate compliance with the request for information from the patient's chart.

The medical assistant may assist the physician in preparing the abstract by listing complaints, diagnoses, treatments and dates given in the chart. This will aid the physician in his preparation of the abstract for transmittal to third parties. The medical assistant thus is not making any determinations of the material in the patient's chart but is merely listing the information for the physician's use in the final preparation of the abstract.

This page is prepared for and by Iowa Chapter, American Association of Medical Assistants. Material is compiled by Mrs. Tenora Meyer.

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Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. *Adults*: Tension, anxiety and psychoneurotic states, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients*: 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

Supplied: Valium® (diazepam) Tablets, 2 mg, 5 mg and 10 mg; bottles of 100 and 500. All strengths also available in Tel-E-Dose® packages of 1000.

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Additional information available to the profession on request.

- X-Ray Whodunit — Page 623
- The Surgical Scrub — Page 627
- About Iowa Physicians — Page 643

DECEMBER 1972



Everybody experiences psychic tension.



Most people can handle this tension.



Some people develop excessive psychic tension and need your counselin



and a few may need counseling
and the psychotropic action of Valium® (diazepam).

Before deciding to make Valium (diazepam) part of your treatment plan, check on whether or not the patient is presently taking drugs and, if so, what his response has been. Along with the medical and social history, this information can help you determine initial dosage, the possibility of side effects and the ultimate prospects of success or failure.

While Valium can be a most helpful adjunct to your counseling, it should be prescribed only as long as excessive psychic tension persists and should be discontinued when you decide it has accomplished its therapeutic task. In general, when dosage guidelines are followed, Valium is well tolerated (see Dosage). For convenience it is available in 2-mg, 5-mg and 10-mg tablets.

Drowsiness, fatigue and ataxia have been the most commonly reported side effects.

Until response is determined, patients receiving Valium should be cautioned against engaging in hazardous occupations requiring complete mental alertness, such as driving or operating machinery.

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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. *Adults:* Tension, anxiety and psychoneurotic states, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

Supplied: Valium® (diazepam) Tablets, 2 mg, 5 mg and 10 mg; bottles of 100 and 500. All strengths also available in Tel-E-Dose® packages of 1000.

Valium®
(diazepam)

To help you manage excessive psychic tension

President's Page



The letters PSRO were entered officially into the book of medical initialism on October 17, 1972. On that day the U. S. Congress agreed on the Social Security Amendments of 1972 (also known as H.R. 1). So now, with this passage and the subsequent presidential signing, Professional Standards Review Organizations are part of the *Law of the Land.*

What does this mean to Iowa physicians?

It means we have a definite challenge in 1973 to prepare for PSRO in 1974. Frankly, this may be our last chance to demonstrate we have the special and unique competence as a profession to evaluate our own performance. First priority (until 1976) for establishing PSRO mechanisms resides with the medical profession. In this period HEW *must* arrange for PSRO activity to be performed by "a qualified organization which represents a substantial proportion of the physicians in the geographical area."

When this arrangement is consummated the PSRO must then "assure proper utilization of care and services . . . utilizing a formal professional mechanism representing the broadest cross-section of practicing physicians in an area."

Steps are being taken by officers of the Iowa Medical Society and the Iowa Foundation for Medical Care to assure that PSRO will come about in an orderly and intelligent fashion.

Season's greetings from your Society officers.

K. E. Lister, MD

K. E. Lister, President

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IOWA Medical Miscellany

PSRO DEVELOPMENTS . . . Pre-election passage of H.R. 1 with its Professional Standards Review Organization (PSRO) provisions caused the IMS Executive Council to act late in October to urge the Iowa Foundation for Medical Care to explore the feasibility of the Foundation undertaking PSRO responsibilities in Iowa. The Foundation Board of Directors has responded it will seek this responsibility. PSRO provisions prohibit a medical society from functioning in this capacity but they do allow a society to recommend a particular mechanism.

MORE ON PSRO . . . The IMS Board of Trustees has authorized its executive vice president, Donald L. Taylor, to serve as one of two state society executives on a PSRO Task Force Committee formed by the American Association of Foundations for Medical Care. The 10-member committee, which includes five physicians, met for the first time in November.

FOUNDATION APPOINTS . . . Fred Ferree has joined the staff of the Iowa Foundation for Medical Care as its director. Ferree is a graduate of The University of Iowa and comes to the Foundation from Blue Shield where he was manager of physician and provider services.

IOWA RESOLUTION . . . An Iowa resolution presented at the recent North Central Medical Conference called for a careful evaluation of that organization. The measure received strong support from representatives of the six participating states. Ways of making the organization more effective will be considered by a special committee which will include IMS President K. E. Lister, M.D.

'73 SCIENTIFIC SESSIONS . . . One aircraft has been filled for the March 29-April 2 trek to the Bahamas for the 1973 IMS Scientific Sessions to be held at Paradise Island Hotel. Reservations are now being received for a second plane and Society officers are optimistic about filling it. Interested IMS members are urged to contact Society Headquarters immediately.

PEER REVIEW . . . The Iowa Society of Osteopathic Physicians and Surgeons has named the Iowa Foundation for Medical Care as its official organization to conduct peer review.

ASSIGNMENTS . . . The matter of Blue Shield paying assigned fees to any designated physician received further consideration from the IMS Executive Council in late October. Considerable attention has been given the matter by Blue Shield and the IMS since the 1972 House of Delegates met. Chances appear strong the subject will be re-submitted to the House for further clarification and evaluation.

CONFER . . . IMS and Blue Shield officials have met several times recently with Blue Cross representatives to define and clarify relationships between the organizations.

1973 HOUSE . . . Following a revised and streamlined format, the 1973 House of Delegates is scheduled to convene in Des Moines at 2 p.m., Saturday, April 28, and is expected to complete its deliberations the afternoon of Monday, April 30.

HOUSE APPORTIONMENT . . . An ad hoc committee analyzing the present organizational structure of the IMS House of Delegates reported its progress recently. Slated for recommendation to the House is a plan which divides the state into 12 revamped districts and provides one delegate for every 15 physicians within a district. This formula will allow for approximately the same number of delegates as now serve.

NOMINATING GUIDELINES . . . Executive Council approval was given in October to a set of 1973 nominating guidelines. These measures are being instituted in an effort to increase interest and participation in the selection of candidates for Society offices. A January mailing to all members will initiate the stepped-up program and will list the offices to be filled.

FISCAL MATTERS . . . The IMS Board of Trustees has undertaken a careful year-end evaluation of Society financial affairs. The evaluation is being made to find ways of curtailing ever-increasing costs.

(Please turn to page 623)

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Radiology Window

CASE NO. 8

A 73-year-old white male entered the hospital with complaints of abdominal pain, nausea, emesis and profound weakness. The initial physical examination revealed a distended abdomen with tenderness on the right, but there was neither rebound tenderness nor rigidity. The hematocrit was 47.1% and the total white blood cell count was 12,000. A KUB x-ray appeared as in Figure 1. The most probable diagnosis would be:

1) Large bowel obstruction at splenic flexure.
2) Volvulus of the cecum.
3) Pyloric stenosis secondary to carcinoma.
4) Volvulus of the sigmoid.

Please turn to page 650 for the correct diagnosis and a further discussion of the case.



Figure 1

This radiologic feature has been prepared and provided by members of the Radiology Department at Mercy Hospital in Des Moines. The co-authors are N. W. Irving, M.D., R. E. Hines, M.D., B. B. Augspurger, M.D., K. Tigrani, M.D., and B. Houle, a medical student.

IOWA MEDICAL MISCELLANY

(Continued from page 621)

BOARD OF HEALTH . . . E. E. Gamet, M.D., Lamoni, and A. J. Soucek, D.D.S., Iowa City, have been named president and vice-president, respectively, of the State Board of Health.

COUNTY ACTION . . . Physicians of the Dallas-Guthrie County Medical Society declared in a recent formal action that "rural medical family practices set up in rural communities should be manned 24 hours a day by physicians involved."

MAINTAIN LIAISON . . . Society efforts to maintain liaison with The U. of I. medical students continue in the hope of establishing a student component society.

APPOINTED . . . Lawrence F. Staples, M.D., Des Moines, was recently appointed by Governor Robbert Ray to represent the IMS on a new Commission to Study Nursing in Iowa. Dr. Staples is chairman of the Society's Committee on Delegation of Authority.

GOVERNOR'S CONFERENCE . . . The first annual Governor's Safety Conference will be December 7 and 8 in Des Moines at the Savery Hotel. Program emphasis will be on the Occupational Safety and Health Act of 1970.

(More Miscellany on page 632)

State Department of Health

ARNOLD M. REEVE, M.D., M.P.H., Commissioner

EMERGENCY MEDICAL SERVICE

A year has passed since the first Statewide Emergency Medical Service Conference occurred in Des Moines. This Conference had these stated objectives:

1. To underscore Emergency Medical Service needs (or concerns) in Iowa.
2. To make recommendations for planned action.
3. To appoint a statewide Emergency Medical Service Advisory Committee.

Many recommendations were made during the two-day conference and while not all have been realized, great progress has been made.

The most important accomplishment has been the establishment of the EMS Advisory Council. Governor Robert Ray appointed 15 people to the Advisory Council which met for the first time February 22, 1972. The Council has met regularly since and has appointed four task forces in the areas of communications, hospital emergency facilities, emergency personnel and training, and ambulance service organization and operation. The members of the Advisory Council are noted here. In addition, the following physicians are serving on task forces as indicated: Marvin H. Dubansky, M.D., Des Moines, Ambulance Service Organization and Operation; John F. Kelly, M.D., Fort Dodge, Communications Policy Advisory Committee; and John Gustafson, M.D., Des Moines, Emergency Personnel and Training.

COMMUNICATIONS CONTRACT

Progress has been made in several areas. The State Department of Health has contracted with Spectra Associates, Incorporated, of Cedar Rapids, to develop a plan for a new statewide EMS Communications System—one compatible with the new state law enforcement system but still separate for emergency medical services. This project will be implemented following approval by the Advisory Council.

Training has become a major project of the EMS Section of the Health Department. Since October 1971 37 classes have been conducted for over 900 ambulance personnel from 105 communities. Further classes are scheduled. These classes offer the course prepared for the National Highway Safety Bureau and involve 71 hours of classroom instruction and at least 10 hours of clinical experience in a hospital. The majority of the instruction is provided by local physicians. The classes are conducted by the area community colleges under contract with the State Department of Health and many are held in local hospitals. Graduates receive a certificate and patch from the Department identifying them as Emergency Medical Technician-Ambulance (EMT-A's) personnel. Plans are being formulated with the Iowa Heart Association to use some of the newly trained EMT-A's as instructors of CPR within their own communities.

Rescue squad personnel are also to receive training through a 40-hour course designed specifically for their operation.

EMERGENCY MEDICAL SERVICE COUNCIL

Glen Anderson, Jr.
State Communications Director

James Anderson, Administrator
Bethesda General Hospital
Fort Dodge

William R. Bliss, M.D.
Ames

Alton Chrystal, Captain
Iowa Highway Patrol

Arthur H. Downing, M.D.
Des Moines

Rick Gamel
Program in Health Occupations Education
University of Iowa

William Good
Boone County Hospital

Albert Maricle, Director
Iowa Civil Defense

Arnold M. Reeve, M.D., M.P.H.
Commissioner of Public Health

John Rich, Operator
Chickasaw County Ambulance Service
Fredericksburg

Keith Royer
Firemanship Training
Iowa State University

Sister M. Eleanora, R.S.N.
Director of Professional Affairs
Iowa Hospital Association

Robert Taube, M.D.
College of Medicine
University of Iowa

Mary M. Wagner
Nursing Service, GH
Iowa City

Ted Welch
Cedar Rapids

The Iowa Highway Patrol will begin training their personnel in a specially designed 20 hour-course in emergency care. This course will be given in lieu of advanced first aid courses. Graduates will receive emergency care equipment to carry in their patrol cars. It is also anticipated the Iowa Law Enforcement Academy will adopt this course as standard in lieu of the advanced first aid course.

Emergency room nurses have requested training and a course is being developed for them.

The American Red Cross and Civil Defense are being encouraged to accelerate their programs for training the general public in first aid and medical self-help.

The Hospital Emergency Facilities Task Force is planning to survey Iowa hospitals and categorize them according to capabilities and/or specialties. Consultation will also be provided hospitals to help them upgrade their emergency capabilities.

The Ambulance Service Organization and Operation Task Force has been working on legislation to license ambulance services and certify ambulances and ambulance personnel. It is anticipated this bill will be introduced in the 1973 Iowa General Assembly.

The EMS Section of the State Department of Health continues to process applications for funds for the purchase of ambulances by the local communities. At this time 48 ambulances have been delivered to 39 communities. Ambulances for three more communities are on order and awaiting delivery. Twelve additional communities are in the process of applying for ambulances. In addition 19 ambulances from 17 communities have been upgraded with radios and/or medical equipment.

While numerous funeral home operated ambulance services have been discontinued a number of private ambulance operators are upgrading their equipment and training. At least eight private operators have enrolled their employees in the EMT-A training program. In 1967 there were only five hospital based ambulance services in Iowa. In 1972 there are over 40. Government operated (fire, police, volunteer, etc.) services are also increasing in number.

It has been difficult to maintain an accurate listing of ambulance services in the state. It is estimated there are less than 350 ambulance services now, compared with 487 in 1967. This is a result of better planning and distribution on the local level. It is anticipated the number of ambulance services will be reduced even further while the service level increases.

A State Emergency Medical Services Plan is being developed. This plan will be presented to the State EMS Advisory Council for its approval. The state plan will be a culmination of the in-put from the EMS Conference last fall; plus the planning done by the Task Forces, the EMS staff, and the various agencies participating in the planning process. It is hoped another EMS Conference can be held in 1973 to provide an update on the implementation of the new State EMS plan.

Morbidity Report for October 1972

Diseases	Oct. 1972	1972 to Date	1971 to Date	Most Oct. Cases Reported From These Counties
Chickenpox	235	6765	5691	Hamilton, Marshall, Pottawattamie
Conjunctivitis	35	700	397	Johnson, Kossuth, Warren
Encephalitis				
Viral	1	7	4	Linn
Type unspecified	2	5	0	Butler, Monroe
Gastrointestinal viral infection	429	4960	6366	Jackson, Johnson, Warren
German measles	5	399	700	Dubuque, Floyd, Hardin, Linn, Pottawattamie
Gonorrhea	486	5043	4868	Linn, Polk, Scott
Hepatitis				
Infectious	28	258	257	Polk, Pottawattamie, Scott, Woodbury
Serum	3	48	12	Johnson, Polk
Impetigo	69	384	434	Floyd, Linn
Infectious mononucleosis	166	837	891	Johnson, Polk, Scott
Measles	23	753	2361	Dubuque, Sioux
Meningitis				
Meningococcal	1	4	13	Polk
Aseptic	1	3	3	Polk
Bacterial	1	4	1	Cerro Gordo
H. influenza	1	10	5	Clay
Type unspecified	2	20	12	Dubuque, Linn
Viral	2	14	6	Dubuque, Pottawattamie
Meningo-encephalitis	2	6	5	Clayton, Lyon
Meningo-encephalitis, Coxsackie B5	1	1	0	Johnson
Mumps	217	5983	3673	Fayette, Floyd, Polk
Pneumonia	117	777	719	Buena Vista, Johnson, Scott
Rabies in animals	12	302	208	Scattered
Rheumatic fever	3	29	46	Emmet, Scott
Ringworm, body	16	77	121	Scattered
Roseola	2	8	25	Dickinson, Johnson
Salmonellosis				
S. agona	2	6	0	Black Hawk, Dubuque
S. infantis	2	14	3	Linn
S. montevideo	2	6	1	Linn, Polk
S. newport	1	17	11	Chickasaw
S. typhimurium	8	67	42	Pottawattamie
Shigellosis				
S. sonnei	28	253	159	Linn, Dubuque, Polk, Pottawattamie
Streptococcal infections	430	5659	5585	Johnson
Syphilis	35	404	516	Black Hawk, Polk, Scott
Tuberculosis, active	5	95	114	Black Hawk, Des Moines, Mahaska, Mills, Polk
Whooping cough	2	40	58	Pottawattamie, Sioux

IOWA Specialty Groups

IOWA RADIOLOGICAL SOCIETY . . . The following new officers were elected at the recent fall meeting: Henry C. Blount, M.D., Des Moines, president; Walter S. Dennert, M.D., Boone, president-elect; and John Huston, Jr., M.D., Cedar Rapids, secretary-treasurer.

IOWA ACADEMY OF FAMILY PHYSICIANS . . . Changes in the By-Laws of the American Academy of Family Physicians permit osteopathic physicians to apply for AAFP membership. To qualify for membership, osteopathic physicians must hold the osteopathic degree; be licensed to practice in the state in which they practice; and be eligible for membership in the constitutent state or provincial society of the American Osteopathic Association. However, the determination of eligibility rests with the state chapter, as well as the actual election to membership.

IOWA CLINICAL SOCIETY OF INTERNAL MEDICINE . . . December 2 scientific program in Iowa City was under the co-chairmanship of Ernest O. Theilen, M.D., and James W. Manier, M.D. Topics discussed included Fiberoptic Bronchoscopy, Surgical Management of Coronary Artery Disease, Joint Fluid Analysis, Home Renal Dialysis, Care of the Pacemaker Patient, Thyroid Disease and Granulomatous Disease.

IOWA UROLOGICAL SOCIETY . . . Officers of the Society for 1973 will be Robert A. Pfaff, M.D., Dubuque, president; Joseph D. Schmidt, M.D., Iowa City, vice-president; and Warren Y. Wulfekuhler, M.D., Mason City, secretary-treasurer. The Society has acted to create a full tuition scholarship in the name of Dr. Nathaniel Alcock at The University of Iowa College of Medicine. The Society also has agreed to work with the Iowa Chapter, American College of Surgeons, in discussing and implementing an effective peer review mechanism.

IOWA PSYCHIATRIC SOCIETY . . . William A. Bockoven, M.D., Ames, attended as a delegate the Assembly of the American Psychiatric Association in Washington, D. C., in November.

IOWA CHAPTER, AMERICAN COLLEGE OF SURGEONS . . . Meeting of the chapter is scheduled Saturday, December 2, in Des Moines at the Hyatt House Motor Hotel. Subject of peer review is to be considered with other surgical groups invited to participate.

IOWA OBSTETRICAL AND GYNECOLOGICAL SOCIETY . . . The Society will co-sponsor a postgraduate course in obstetrics and gynecology December 6 and 7 in Iowa City. Guest speakers will be R. Clay Burchell, M.D., Hartford, Conn., Leo J. Dunn, M.D., Richmond, Va., and James C. Warren, M.D., St. Louis, Mo. There is to be a business meeting of the Society the afternoon of December 6. Richard Moore, M.D., Des Moines, is the Society president.

IOWA ASSOCIATION OF PATHOLOGISTS . . . Iowa Medical Society endorsement has been given a program for quality assurance of clinical laboratory testing which has been developed by the Wisconsin and Iowa Associations of Pathologists. An informational program to bring this program to the attention of Iowa physicians is being devised, according to W. S. Pheteplace, M.D., Davenport, president of the IAP.

IOWA SOCIETY OF ANESTHESIOLOGISTS . . . Jack Moyers, M.D., professor and head of the Department of Anesthesia at The U. of I. College of Medicine, has been elected vice president for scientific affairs of the American Society of Anesthesiologists. Dr. Moyers has served for 14 years as a member of the ASA House of Delegates and is an ASA delegate to the World Federation of Societies of Anesthesiologists.

SCIENTIFIC ARTICLES

Evaluation of Several Methods of Surgical Scrub

WALTER E. GOWER, M.D.
Duluth, Minnesota

THIS STUDY was initiated to evaluate the effectiveness of several methods of surgical scrub employed for many years at the Department of Orthopedic Surgery at The University of Iowa.

MATERIALS AND METHODS

All surgical scrubs in the initial phase of this study were done by the author. Each method was limited to 10 minutes or less. The method of bacteriological evaluation employed was that described by Gale *et al.*[1] Prior to the surgical scrub the fingertips of the thumb and fingers were touched to the surface of the agar in such a manner that the fingernails broke the surface of the agar. This was done for both the right and left hands using separate blood agar plates. Immediately after the surgical scrub a new set of blood agar plates was imprinted. Sterile surgical gloves were then put on and the wrists secured with rubber bands. No attempt was made to keep the outside of the gloves sterile. After one, two, and three hours the gloves were removed and new sets of blood agar plates were imprinted. A new pair of gloves was used after the one and two hour plates were imprinted. Pre-powdered disposable gloves were used which are supplied sterile by the manufacturer. As a control, blood agar plates were imprinted initially, hands were held in the air for 10 minutes but no scrub employed, and then a second set of plates were imprinted. Following this, sterile gloves were put on and subsequent plates were imprinted after one, two and three hours. Only one scrub or control was done each day. Five repetitions of each method of scrub and five controls were done and the results of the five repetitions were averaged. After the three hour plates were imprinted, all 10 of the plates were incubated at 37° C for 24 hours. The numbers of bacterial colonies per fingerprint were then counted and totals for the 10 digits obtained. In a few cases there was such luxuriant growth on the pre-scrub plates that the colonies tended to merge. In these cases where the colonies per fingerprint exceeded 50, estimates were made as accurately as possible. The colony counts were done with the aid of a 2X magnifying lens. Greater than 95% of the colonies were Staphylococcus epidermidis.

Dr. Gower is in the private practice of orthopedics in Duluth, Minnesota. This paper was prepared during his period of residency at The University of Iowa College of Medicine.

THE SCANLON MEDICAL FOUNDATION/IOWA MEDICAL SOCIETY HAS DESIGNATED THIS ARTICLE AS THE HENRY ALBERT SCIENTIFIC PRESENTATION FOR THE MONTH OF DECEMBER, 1972.

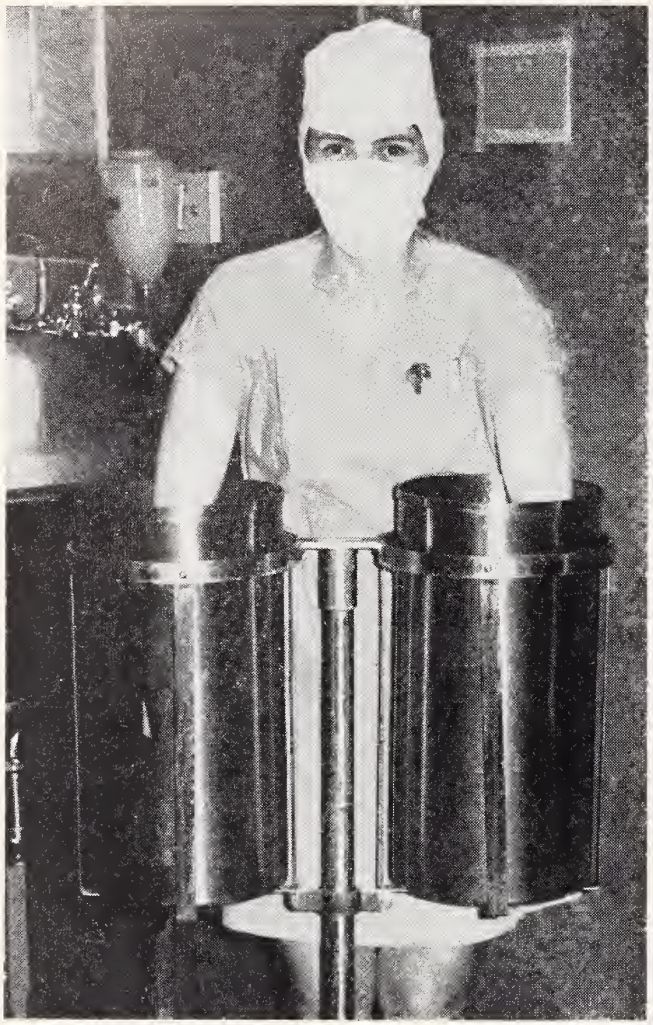


Figure 1. Surgical nurse dipping hands and forearms in HIACA solution for 2 minutes.

Three methods of surgical scrub were in use at the time this study was initiated. These consisted of use of either Phisohex (3% hexachlorophene detergent lotion), 10% aqueous solution of polyvinylpyrrolidone iodine, or scrubbing with tincture of green soap, drying with a sterile towel and immersing the hands and forearms in cylindrical tanks containing



Figure 2. The fingertips are touched to the surface of a blood agar plate in such a fashion as to break the surface with the fingernails.

HIACA solution. HIACA solution is prepared by the hospital pharmacy and is composed of 70% isopropyl alcohol, 0.5% cetyl alcohol and 0.1% hexachlorophene. Three gallons of HIACA solution are placed in each of two cylindrical tanks, used for five days and then discarded. When Phisohex or PVP iodine were used alone, fingernails were cleaned and a three cycle scrub using a brush and lasting seven minutes was done, the hands were rinsed under running water, dried with a sterile towel and the blood agar plates imprinted. When Phisohex, PVP iodine, or tincture of green soap scrubs were followed by immersion in HIACA solution, the hands were dried prior to immersion. After immersion in HIACA solution the hands were held in the air for three minutes prior to imprinting the blood agar plates. When the HIACA dip is used prior to surgery the hands are not dried with a towel but simply air dried for several minutes before putting on gown and gloves. To test the effectiveness of HIACA solution by itself without prior surgical scrub or cleaning of the fingernails, five trials were carried out employing

TABLE I

SCRUB INDEX

	Pre-scrub (Percent)	Post-scrub (Percent)	1 Hour (Percent)	2 Hours (Percent)	3 Hours (Percent)
Control (no scrub)	100	101	125	127	129
Phisohex (3% hexachlorophene)	100	26	2	2	1
PVP iodine	100	38	53	35	35
HIACA	100	3	0	1	1
Green soap plus HIACA	100	0	0	0	4
Phisohex plus HIACA	100	0	0	0	1
PVP iodine plus HIACA	100	0	0	0	1



Figure 3. Typical appearance of the colonies of Staphylococcus epidermidis which are obtained from one fingertip prior to surgical scrub.

only a two minute period of immersion in HIACA solution.

In the second phase of this study one method, Phisohex scrub followed by two minute immersion in HIACA was tested on seven individuals participating in two surgical procedures of total hip replacement arthroplasty on two different days. Two of the surgeons were the same for both procedures and thus nine sets of data were obtained. Blood agar plates were imprinted before scrub, after immersion in HIACA solution, and two hours later after the completion of the surgery.

RESULTS

The scrub index represents the number of bacterial colonies expressed as a percentage of the total number of colonies in the pre-scrub sample. The averages of five separate tests of each method are shown in Table I. The colony counts for the control increased during the three hour period while wearing gloves. When Phisohex scrub alone was used there were 26% as many colonies present after scrubbing as before scrubbing but only 2% as many after one and two hours and 1% after three hours of wearing gloves. This appears to represent a continuing anti-bacterial action of Phisohex during the three hours following scrub that was not observed when using PVP iodine. A two minute immersion in HIACA solution without prior scrub or cleansing of the fingernails

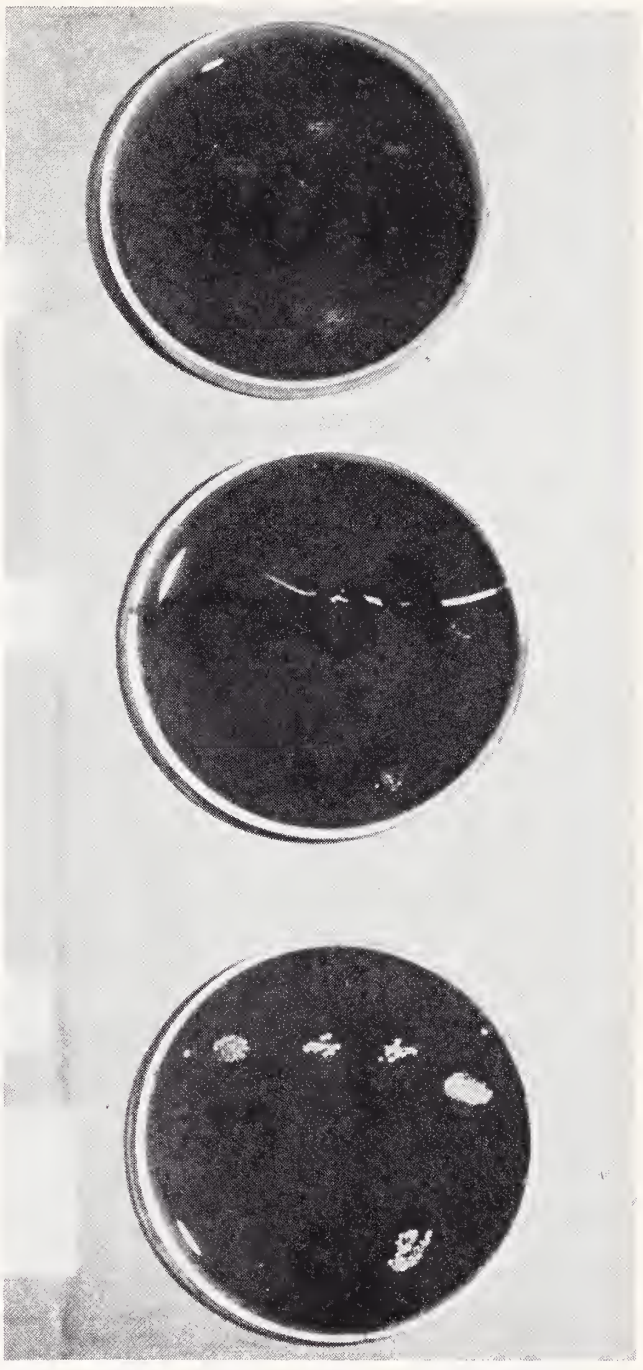


Figure 4. Bacterial colonies are present on the pre-scrub blood agar plate and absent on the plates obtained after Phisohex scrub and 2 minute dip in HIACA. The top plate shows absence of bacterial growth 3 hours after scrubbing.

was more effective than either Phisohex or PVP iodine scrub alone and the excellent antibacterial effect was maintained during the three hours after scrubbing. Phisohex, or PVP iodine or tincture of green soap scrubs, when followed by two minute immersion in HIACA, were slightly better than HIACA solution alone.

TABLE II

SCRUB INDEX BEFORE AND AFTER TOTAL HIP REPLACEMENT ARTHROPLASTY

	Pre-scrub (Percent)	Post-scrub (Percent)	Post-surgery (2 hours) (Percent)
R.J.	100	0	0
R.J.	100	0	19
J.T.	100	0	0
J.T.	100	0	0
T.O.	100	0	12
D.C.	100	0	1
B.W.	100	0	0
R.C.	100	0	0
M.S.	100	0	0

Table II indicates the results of nine trial uses of Phisohex scrub followed by two minutes immersion in HIACA solution in two total hip arthroplasty operations. There was no growth on any of the blood agar plates imprinted just prior to surgery nor on six out of nine following the operation.

Use of two minute immersion in HIACA solution following surgical scrub is now standard procedure in the Department of Orthopedic Surgery. Skin irritation from use of HIACA solution has been a very infrequent problem. It appears this method improves significantly on the results achieved by surgical scrub alone.

Reduction of the bacterial flora of the patient's skin and of the surgeon's hands to the lowest possible level is the objective of pre-operative scrubbing and use of antiseptics. Attention to detail in the use of antiseptics can result in very effective control over the bacterial flora of the skin. The continuing quest to reduce the incidence of wound infection in clean surgical cases to the absolute minimum demands an interest on the part of every surgeon in understanding and controlling the many factors that play a role in the bacteriological environment of the operating room.

SUMMARY

A bacteriological evaluation of several methods of surgical scrub has been described. The use of HIACA solution, containing 70% alcohol, as a two minute post-scrub dip is an effective method of reducing the bacterial flora of the surgeon's hands.

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Erythrocytosis and Renal Disease

JOSEPH D. SCHMIDT, M.D.
Iowa City

In the last several decades clinical and experimental evidence has demonstrated the relationship between certain renal diseases and increases in red cell mass (erythrocytosis). A patient with erythrocytosis, a normal white blood cell count, a normal platelet count and no splenomegaly must be considered to have either a unilateral or bilateral renal lesion (Tables I and II). Increased erythropoietin activity in plasma or urine is most frequently associated with renal cell carcinoma in which disease 3-4% of patients will present with erythrocytosis. Patients with Wilms' tumor also demonstrate an elevation in plasma erythropoietin activity but for some unexplained reason have no increase in their red cell mass. That increased erythropoietin activity is not a function only of malignant renal tissue is shown by the benign renal diseases, either acquired or congenital, which may also be associated with increased plasma erythropoietin activity and erythrocytosis.

Some of the evidence for production of erythropoietin (or at least production of a precursor of erythropoietin) by the normal or diseased kidney, is as follows:

(1) removal of the diseased tissue such as a nephrectomy for renal cell carcinoma will generally result in the patient's red cell mass returning to normal and his plasma erythropoietin activity also dropping to normal;

(2) a recurrence of such a renal cell carcinoma either locally or as a metastasis will be associated with recurrent erythrocytosis and increase in plasma erythropoietin activity;

(3) bio-assays from tissue extracts have demonstrated increased erythropoietin activity in tumor cells and not in the uninvolved kidney;

(4) renal arteriovenous difference studies have shown a significant increase in plasma erythropoietin activity in the renal venous effluent; and

(5) increased erythropoietin activity has also been demonstrated in fluid from simple renal cysts associated with erythrocytosis and increased plasma erythropoietin activity.

Experimentally produced renal tumors in rats have also been shown to be related to an increased plasma erythropoietin activity. Whether such activity truly originates from the tumor or otherwise diseased renal cell or is a nonspecific result of local tissue damage and hypoxia is not yet known. The well-recognized occurrence of anemia in renal failure may be at least in part related to a deficiency in normal erythropoietin production by the kidney. The advantage of a simplified laboratory technique for the measurement of plasma erythropoietin activity as a means of predicting or uncovering

TABLE I

GENITOURINARY SYSTEM—HORMONE-PRODUCING LESIONS

	ENDOCRINE SOURCE	
	Normal	Lesions
Adrenal		
Cortex	Aldosterone	Hyperplasia
	Glucocorticoids	Adenoma
	Mineralocorticoids	Carcinoma
	Androgens (estrogens)	
Medulla	Norepinephrine	Neuroblastoma
	Epinephrine	Pheochromocytoma
Testis		
Leydig cell	Androgens (estrogens)	Interstitial cell tumor
Sertoli cell	Estrogen	Sertoli cell tumor
Germinal cell	0	Choriocarcinoma

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metastatic tumor prior to clinical symptoms in patients with renal cell carcinoma or Wilms' tumor is obvious.

The production of a hypercalcemic parathyroid-like factor by renal cell carcinoma has also been established within the last few years. Although hypercalcemia is much less common than increased erythropoiesis, the laboratory and clinical evidence for such hormonal activity by the tumor is very similar.

TABLE II

GENITOURINARY SYSTEM—HORMONE-PRODUCING LESIONS
NON-ENDOCRINE SOURCE

	Hormone	Benign	Malignant
Kidney parenchyma	Erythropoietin	Polycystic disease Simple cyst Hydronephrosis Adenoma Fibromyxoma Transplant Normal Kidney	Renal cell cancer Wilms' tumor
	Parathyroid activity (hypercalcemic factor)	None	Renal cell cancer
	Hypocalcemic factor	None	Renal cell cancer
	Renin	Hypoperfusion states Normal kidney	Hypoperfusion states
	Prolactin	None	Renal cell cancer
Calyx, pelvis, ureter, urethra, penis	Parathyroid activity	None	Squamous cell carcinoma
Bladder	Norepinephrine Epinephrine	None	Pheochromocytoma
Prostate, seminal vesicles	ACTH Erythropoietin	None	Prostatic carcinoma

IOWA MEDICAL MISCELLANY

(Continued from page 623)

CONTINUING EDUCATION . . . Approval has been given by the Executive Council to a recommendation of the Committee on Medical Education and Hospitals that "the IMS strongly support in-hospital evaluations of medical practice at the local level as a means of continuing medical education. The importance of CME courses and conferences should not be de-emphasized; however, the fact that CME is a constant day-to-day activity for physicians should be underscored."

ORGAN TRANSPLANTATION . . . A call for study of the enactment of legislation to define brain death by the Committee on Organ Transplantation has been referred to the Legislative Committee. R. L. Lawton, M.D., chairman of the transplant group, met with the Legislative Committee in November.

PROGRAM ENDORSED . . . IMS endorsement has been given a quality assurance program developed by the Iowa and Wisconsin Associations of Pathologists. The Executive Council approved this voluntary laboratory proficiency testing program on the recommendation of the Committee on Independent Laboratories.

IRMP COORDINATOR . . . Charles W. Caldwell has been appointed coordinator of the Iowa Regional Medical Program to succeed Harry B. Weinberg, M.D., who left the post in January. Caldwell has been serving as acting coordinator. He has been associated with IRMP for more than five years.

SCANLON FOUNDATION . . . The Board of Directors of the Scanlon Medical Foundation/Iowa Medical Society met in Iowa City November 9. There are 31 medical students now receiving Foundation loans.

TO LOBBY . . . Richard Phillips, who joined the IMS staff early in the year, will represent the Society at the Statehouse during the 1973 Iowa General Assembly. Phillips succeeds Kent Jerome in this capacity. Jerome has become administrative head of the Iowa Telephone Association.

IMS OBJECTS . . . Society President K. E. Lister, M.D., filed a strong letter of objection to a REGISTER AND TRIBUNE editorial in late October which criticized physicians for "medical absolutism" and "obsessive concern over controlling the health care system."

Intrauterine Growth Retardation

Report of a Case and Discussion of the Problem

DWIGHT P. CRUIKSHANK, M.D.
Iowa City

In every medical history, the patient's weight is at least of equal importance with his age. Such is not the case in evaluation of the newborn infant, who until recently has been classified as "mature" or "premature" on the basis of birth weight alone. There now has been described a group of infants with weights considerably less than normal for their stage of gestation. These infants have been called "dysmature," "small for dates," and "intrauterine growth retarded." The following is a case report of such an infant, as well as a discussion of the problem of intrauterine growth retardation.

CASE REPORT

M.L., a 20-year-old white female, gravida 3, para 2, presented to The University of Iowa prenatal clinic on 6/18/71, in the 21st week of gestation by dates. She gave this obstetrical history: an 8 lb 4 oz male infant delivered at 40 weeks gestation in 1967, and a 6 lb 3 oz male infant delivered at 38 weeks gestation in 1969. Both pregnancies were uncomplicated, and each was associated with a 28 lb maternal weight gain.

The initial physical exam was entirely normal: blood pressure was 100/60 (and remained at this level throughout pregnancy); the uterine fundus measured 17.5 cm, and fetal heart tones were 150/minute; initial urinalysis revealed no sugar or protein (and remained so throughout her pregnancy).

In the 22nd week of gestation, the patient experienced blunt trauma to the abdomen, which was not associated with abdominal pain or vaginal bleeding. The significance of this episode can only be conjectural, but the patient states she felt no fetal movement for the next two weeks, and subsequent fetal movements were reduced in vigor.

In the 23rd and 25th weeks of gestation, it was noted that the uterus was not growing (Table I) and that maternal weight was falling. The diagnosis of intrauterine growth retardation was entertained and a 24-hour urinary estriol was obtained. The results of this were well within normal limits, being 17.0 mg/gram of creatinine. Between the 25th and 31st weeks of gestation, there was some growth in fundal height and increase in maternal weight, but it became increasingly evident the fetus was severely growth retarded. Ultrasonic measurement of the fetal skull in the 31st week of gestation revealed a biparietal diameter of 6.9 cm, compatible with a fetal weight of 1400 grams. From this point onward in the pregnancy, the patient was followed with weekly or twice weekly urinary estriol determinations, which remained normal until the 35th week of gestation (Table I). During the 33rd and 34th weeks of gestation, the patient was hospitalized at strict bed rest, but this regimen had no effect upon 24-hour urinary estriol excretion. In the 33rd week of gestation, amniocentesis for fetal maturity studies was performed, revealing the following: amniotic fluid creatinine 2.2 mg%, compatible with fetal maturity; nile blue stain positive orange cells 20-30%, with frequent orange bodies, compatible with 38+ weeks gestational age; lecithin/sphingomyelin ratio of 3.0/1.0, compatible with pulmonary maturity. X-ray examination of the maternal abdomen at 33 weeks of gestation (Figure 1) revealed a very small fetus in a cephalic presentation. Examination of the fetal skeleton was equivocal for the presence of distal femoral epiphyses (Figure 2).

In the 35th and 36th weeks of gestation, it

Dr. Cruikshank is a resident in the Department of Obstetrics and Gynecology at The University of Iowa College of Medicine.

TABLE I

Weeks Gestation	Fundal Height (cm)	Maternal Weight (kg)	Urinary Estriol (mg/gm Creatinine)	Ultrasound Biparietal Diameter (cm)
21.....	17.5	57.8		
23.....	17.0	57.1		
25.....	16.0	57.1	17.0	
27.....	21.0	58.8		
29.....	25.0	59.8		
31.....	22.0	59.5	12.2	6.9 (1400 gm)
32.....	23.0	58.5	11.4	
33.....	24.0	59.9	11.0	6.9
34.....	24.0	60.0	14.0	
			12.0	
35.....	23.5	60.0	8.2	7.1 (1500 gm)
36.....	23.0	60.3	8.7	

became evident that maternal estriol excretion was falling (Table I), and it was decided that delivery should be accomplished without delay. At this time, the fetal biparietal diameter by ultrasound was 7.1 cm, compatible with a fetal weight of 1500 gm. Clinical estimates of fetal weight ranged from 1000-1500 grams. On the first day of the 37th week of gestation, induction of labor was begun with an intravenous pitocin infusion, without artificial rupture of the fetal membranes. Labor began 40 minutes after the initiation of the infusion, and the patient began having 2+ contractions every 3-5

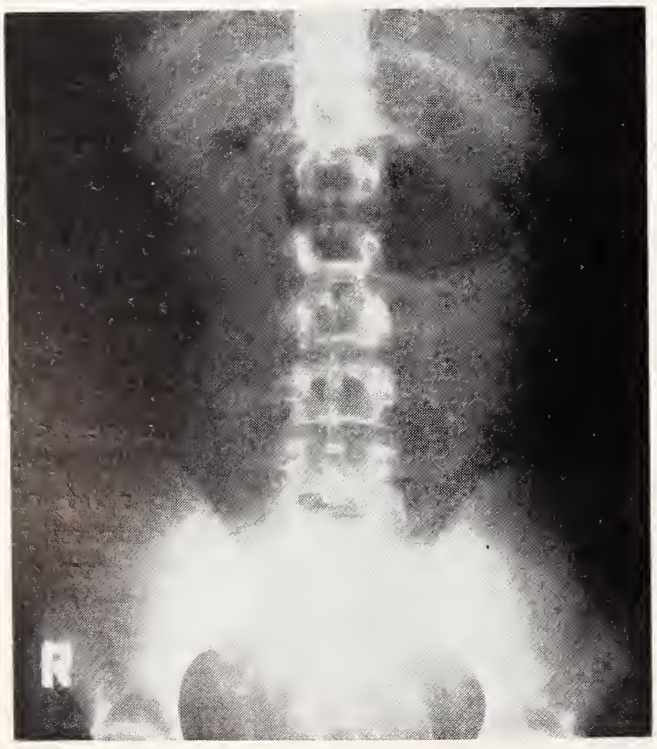


Figure 1. Flat film of maternal abdomen in 33rd week of gestation, showing small fetus in cephalic presentation.



Figure 2. Close up view of fetal femur showing probable distal femoral epiphysis (above arrow).

minutes. However, continuous external fetal heart monitoring revealed both early and late fetal heart rate decelerations to as low as 70 beats/minute, and an occasional variable deceleration to 100 beats/minute. On this basis, the diagnosis of fetal distress was made, and it was felt that the fetus could not tolerate further labor. Therefore, after 2 hours of labor, a primary low transverse cervical cesarean section was performed, with delivery of an 1190 gm (2 lb 9 oz) female infant with a one minute Apgar of 8 and a five minute Apgar of 9. The placenta was circumvallate, weighed 300 gm, and on inspection was found to be approximately 70% infarcted. The area of cord insertion was involved in an infarction measuring

11x8x2 cm, and there were numerous other infarctions throughout the placenta (Figures 3 and 4).

Initial examination of the newborn revealed a biparietal diameter of 7.6 cm and a length of 37 cm. The infant was vigorous with good muscle tone, had good respiratory effort without retractions or grunting, and had abundant palm and sole creases. During the first 3 days of life, the infant experienced several episodes of hypoglycemia, which were successfully treated with intravenous 20% dextrose in water. By the seventh day of life, the infant had reached its lowest weight (1040 gm), but was doing well and taking oral feedings. After the eighth day of life, the infant consistently did well, and was discharged home on the 40th day of life weighing 2270 gm (5 lbs).

DISCUSSION

Intrauterine growth retardation is defined as fetal weight more than two standard deviations below the mean for gestational age. Mean birth weights and standard deviations for each week of gestation have been reported by Gruenwald:[1] at 28 weeks gestation, a fetus weighing less than 430 gm is 2 S.D. below the mean and thus growth retarded; at 36 weeks gestation, the limiting weight is 1720 gm; at 38 weeks it is 2150 gm, and at 40 weeks gestation any infant weighing less than 2400 gm is more than 2 S.D. below the mean, and thus growth retarded. It has been estimated[2] that roughly one-third of all infants weighing less than 2500 gm at birth are growth retarded rather than premature. The incidence of newborns weighing less than 2500 gm varies between 6-14%—therefore, approximately 2-5% of all births will be infants who are intrauterine growth retarded.

The etiology of intrauterine growth retardation can be divided into maternal, placental and fetal factors. Maternal factors known to be associated with low birth weight babies include heavy maternal smoking, poverty, chronic renal disease, starvation, and hypoxia (such as high altitudes or sickle-cell disease). Although all of these can cause mild forms of intrauterine growth retardation, the only maternal factors associated with extreme degrees of fetal growth retardation, such as the case presented here, are 1) severe maternal cyanotic heart disease, and 2) severe maternal vascular disease, such as diabetes, renal disease, collagen disease, or hypertension. Extreme maternal starvation usually leads to infertility, but if starvation ensues after conception this too can lead to profound degrees of intrauterine growth retardation.

The only placental lesions which have been



Figure 3. Fetal surface of placenta, demonstrating circumvallate placenta and cord insertion into large infarcted area.



Figure 4. Maternal surface of placenta, showing large infarction and multiple smaller infarctions.

associated with intrauterine growth retardation are multiple infarctions of the placenta or hemangiomata of the umbilical cord.[3] Other placental lesions such as abnormal cord insertions, extrachorial (circumvallate) placentas, diminished numbers of cotelydons, or an abnormal number of cord vessels have not been shown to have any statistical correlation with intrauterine growth retardation.

Fetuses which are growth retarded as a result of maternal or placental factors are usually morphologically normal, and are associated with small placentas. If antepartum or intrapartum death can be prevented, these infants do well. The same cannot be said for fetuses which are growth retarded because of fetal factors—these infants are associated with normal-sized or large placentas, tolerate labor well, but do poorly in later life. The chief fetal factors associated with intrauterine growth retardation are chromosomal anomalies and intrauterine infections. Nearly all of the recognized chromosomal abnormalities are associated with intrauterine growth retardation—the most outstanding among this group are Down's syndrome, the 18 Trisomies, and the autosomal deletion syndromes.[4]

The association between congenital rubella and intrauterine growth retardation was well established during the rubella epidemic of 1963-64.[5] Several other congenital infections, which in the past were thought to lead to prematurity, are now thought instead to cause intrauterine growth retardation—these include cytomegalic inclusion disease, toxoplasmosis and syphilis.

There is no evidence at present that there is any endocrine cause for intrauterine growth retardation. Fetal deficiency of thyroxin, glucocorticoids, androgens, insulin, or growth hormone have not been shown to lead to diminished fetal growth. Many women with intrauterine growth retarded fetuses have low levels of human placental lactogen, but this is thought to be secondary to the placental insufficiency rather than the cause of it.

Intrauterine growth retardation never manifests itself before the 20th week of gestation, and usually becomes evident between 26-30 weeks of gestation. Therefore, the most reliable method of diagnosis is accurate correlation of dates and uterine size by physical exam prior to 20 weeks gestation, and then noting at a later date that the uterine size is not increasing at a rate compatible with the duration of gestation. This, of course, necessitates examining the patient prior to the 20th week, which is not always possible. If the patient is first seen late in pregnancy with a uterine size too small for dates, the problem arises as to whether the patient is wrong about the date of her last menstrual period, or whether the fetus is in fact intrauterine growth retarded. Elder[6] has pointed out that intrauterine growth retardation is associated with a static or falling maternal weight in late pregnancy. If the fetus is thought to be small for dates in late pregnancy, and maternal weight is increasing, most likely the patient's dates are wrong; if however, the maternal weight is static or falling, the diagnosis of intrauterine growth retardation is likely.

Ultrasonic echoscopy for measurement of the fetal biparietal diameter, if accurately done, can be used to make the diagnosis of intrauterine growth retardation.[7] The normal rate of growth of the fetal biparietal diameter has been well correlated with gestational age,[8] and serial determinations can detect decelerations in the rate of fetal growth. The limited availability of this procedure prevents its widespread usefulness at this time, however.

Maternal estriol excretion is not a reliable method for making the diagnosis of intrauterine growth retardation, because women with consistently normal estriols can deliver growth retarded babies, and conversely, many women with low estriols have normal sized infants. Serial estriols are extremely useful, however, in the management of patients once the diagnosis of intrauterine growth retardation is made.

Information obtained from x-rays of the maternal abdomen is of little value in making the diagnosis of intrauterine growth retardation, because the appearance of distal femoral and proximal tibial epiphyses correlates with fetal weight, not gestational age, and because growth retarded fetuses often have a striking delay in skeletal maturation. Scott and Usher[9] have shown that at 39.5 weeks of gestation, distal femoral epiphyses are present in 63% of growth retarded fetuses vs. 100% of normal weight fetuses, and proximal tibial epiphyses are present in only 16% of the growth retarded group vs. 92% of the normal group.

Amniocentesis can be a valuable adjunct in making the diagnosis of intrauterine growth retardation. An amniotic fluid creatinine of 2.0 mg% signifies fetal maturity, as does an orange cell count of greater than 10%, and these parameters seems as valid in growth retardation as in normal gestation.

Once the diagnosis of intrauterine growth retardation is made, the patient should be followed closely with serial urinary estriol measurements. A significant drop or a consistent downward trend at any time after the 34th week of gestation demands that the infant be delivered by the most expeditious method. Serial amniocenteses are also helpful in that the finding of meconium stained amniotic fluid indicates fetal distress which requires intervention. Once the decision for delivery is reached, the obstetrician must decide between 1) induction of labor and 2) cesarean section without trial of labor. It must be kept in mind that fetuses which are intrauterine growth retarded due to maternal or placental factors already have a compromised blood supply and tolerate labor poorly, with a high incidence of intrapartum fetal distress and fetal death. If the cervix is favorable—soft, anterior, at least 2 cm dilated—the procedure of choice would seem to be induction of labor by intravenous oxytocin infusion. This must be undertaken with careful monitoring of the fetal heart in order to detect early signs of fetal distress. If the cervix is unfavorable, if the amniotic fluid is meconium stained at any time after the 34th week, or if fetal distress develops during induction, immediate cesarean section is indicated. Objections to cesarean section for delivery of these infants are often made on the grounds that the intrauterine growth retardation may be due to a congenital anomaly or infection, and that a woman should not be subjected to cesarean section for delivery of a non-viable or severely malformed infant. However, most fetuses with congenital anomalies or infections have no deficiency in the maternal and placental "lifeline," and thus rarely develop fetal distress in labor. Therefore, the course of therapy outlined above seems justified as a means of salvaging the greatest number of infants.

The growth retarded newborn is subject to several problems not usually seen in normal sized infants, including 1) CNS depression due to intrauterine hypoxia, 2) transient hypoglycemia, 3) an increased incidence of massive pulmonary hemorrhage, the cause of which is unknown, and 4) blood hyperviscosity with elevated hematocrit. However, if these infants survive the first 4 days of life, they usually do well. Perinatal mortality studies show that intrauterine growth retarded infants have a much better survival rate than premature infants of the same birth weight, although their survival rate is not as favorable as that of full sized infants. The data in Table II from the Colorado study[2] support this fact. Thus for every birth weight between 1000-2500 gm, a premature infant has a 400% greater mortality rate than an intrauterine growth retarded baby of the same birth weight.

TABLE II

Type of Infant	Perinatal Mortality
Term infant (2500-4000 gm)	0.4%
Intrauterine growth retarded infant (1500-2500 gm)	2.0%
Premature infant (1500-2500 gm)	8.0%
Intrauterine growth retarded infant (1000-1500 gm)	13.0%
Premature infant (1000-1500 gm)	50.0%

Vigorous attempts to salvage intrauterine growth retarded infants seem justified when long term followup is considered. Full sized infants and intrauterine growth retarded infants born at comparable gestational age have identical IQs at age 12.[10] On the other hand, comparison of intrauterine growth retarded infants with prematures of the same birth weight reveals that by age 12 the children who had been growth retarded are significantly more intelligent than those premature at birth.

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Doctor's Business

by HOWARD D. BAKER

IS A HOME A SOUND INVESTMENT?

For several years we have noted an increasing trend among physicians toward larger, more costly homes—far too often at the expense of a sound overall financial plan. Just how much "status symbolism" is involved in these ultra-expensive homes is not known—but it is obvious there is some objective beyond adequate housing.

Too frequently the size of the investment in a residence is governed by the monthly mortgage payment. If the payment can be supported, the cost is often disregarded or considered inconsequential. Rarely does the prospective buyer measure the true and complete cost of a luxury home in comparison to an adequate home.

We recently studied the financial aspects of owning homes at various price levels. In the following example we assume the homeowner is in a 40% top tax bracket and is considering the purchase of one of three homes—one costing $35,000; one costing $50,000; and one costing $70,000. He has $15,000 cash for equity.

	House A	House B	House C
Total Cost	$35,000	$50,000	$70,000
Cash for Equity	15,000	15,000	15,000
Mortgage Balance	$20,000	$35,000	$55,000
Monthly Mortgage Payments (20 year, 8% mortgage)	$167.29	$292.76	$460.01

At this point the doctor feels he can support the $460.01 monthly payment, but wonders what other factors may be involved:

	Estimated Annual Difference	
	House B Over House A	House C Over House A
Annual Mortgage Payment	+$1,500	+$3,500
Additional Property Taxes	+ 400	+ 1,200
Additional Maintenance	+ 200	+ 600
Estimated Annual Difference—20 years	+$2,100	+$5,300

Here we discover House B will require about $175 per month in cash outlay over House A, and House C will require nearly $440 more per month. These differences do not consider additional and more expensive furniture, additional domestic help and the inevitable increase in the overall cost of living which accompanies the luxury home.

It must be remembered a personal residence is a non-income producing asset. Many persons sacrifice investment and retirement funds by having all of their assets tied up in a residence and furnishings. What would this monthly difference amount to if invested wisely in a productive medium?

In House B, the cost differential was $2,100 per year; however, this includes interest and taxes which are deductible and result in tax savings. The after-tax difference is $1,600 per year. If this amount were invested to yield and appreciate at 7%, the net after-tax performance would be about 4½% and this would accumulate to $52,000 over the 20-year mortgage period. In House C, the cost differential was $5,300 before tax, or $4,200 after tax. This invested under the same circumstances would grow to $132,000 in the 20-year period. These figures give dramatic emphasis to our contention that excessive expenditure on a residence can have permanent and serious results in terms of achieving a reasonable degree of financial security. These figures also point out the logic of measuring the long-term effect of an excessive residential commitment—as compared to the trend toward measuring the size of the commitment in terms of ability to meet the monthly mortgage payment.

While there are advocates of various "rules of thumb" for measuring a home investment, we believe this determination can be made only by study of the individual's specific financial circumstances. In the absence of unusually favorable circumstances, such as a sizable inheritance or outstanding past investment success, or various adverse circumstances, such as bad health or heavy liabilities, the following guide is probably reasonable for the average doctor:

(Please turn to page 650)

Mr. Baker is Manager of the Financial Planning Department for Professional Management Midwest.

Editorials

M. E. ALBERTS, M.D., Scientific Editor

MEDICAL STUDENTS TO HAVE NEW EDUCATION EXPERIENCE

Primary medical care at the community level comes into sharp focus with a new program to begin soon at The University of Iowa College of Medicine. This demonstrates once more the University does give consideration to the smaller communities in its educational program. Provision is made on an elective basis for a fourth-year student to work under the supervision of a private physician in his office for 4-12 weeks in the areas of family practice, pediatrics or internal medicine. Iowa physicians will be asked to assist with the new plan.

The program, funded by a five-year $364,866 grant from the U. S. Public Health Service, will provide the students with practical experience in addition to the required preceptorship. It will also embody other community projects such as the Iowa City free clinic, the Muscatine Migrant Worker project and the Department of Family Practice clinics.

We hope this program achieves the great success which is envisioned by Dr. Richard M. Caplan, U. of I. Assistant Dean of Continuing Medical Education. Iowa physicians will be asked to assist with the program. The student is no longer content with didactic lectures. He desires patient contact in a non-artificial setting. There he is brought to the full realization of what medical care is all about. For some it will be particularly enlightening and may be the one mechanism to stimulate their interest in primary care and perhaps a future rural practice. For others, a small minority we pray, this exposure will move them toward a pure specialty of a limited nature out of a fear or other unwillingness to accept all the varied challenges of family practice. The student involved in the internal medicine aspect of this new program will be least likely to face disillusion. In pediatrics and family practice the exposure will be weighted heavily on the nitty-gritty side of everyday practice instead of the textbook cases referred to medical school clinics.

All good wishes go to this new program. There is a desire also that the yield will be high in dedicated primary physicians in the fields of pediatrics, internal medicine and family practice.—M.E.A.

GUIDING THE CHANGE

Somewhere in the misty past, man learned that, by joining with his fellows, he could benefit more from the combined efforts of all than from his striving alone. The group, acting in unison, was more effective than each individual trying to function by himself. This "herd instinct" caused man, collectively, to form tribes, villages, cities, nations, and even associations of nations.

As society has become more complex, the same "herd instinct" has continued to manifest itself as people with common interests or occupations gather themselves into groups to better work toward their goals. The group, then, speaking in a single, loud voice can be much better heard than many faint voices in the incessant din of today's society.

Physicians have gathered themselves together in a variety of groups, many based upon medical specialties. These societies are indispensable in the maintenance of modern profes-

sional skills but few of them can exert much influence in the over-all space of today's society. The direction in which modern society moves is determined by the sum of powerful conflicting pressures and tensions. Those who do not band themselves together to espouse their cause will find they have little influence upon the outcome.

The one common ground upon which all physicians of all disciplines can meet to exert influence is organized medicine with its county, state, and national components. It is the only common voice we have and its strength depends upon the support of its members. This voice does not always say what every member wants it to because there are healthy disagreements in any vigorous, democratic organization. The words the voice speaks will change whenever a majority wills it. It is far better that those who disagree try to change the words instead of withdrawing in pique and outrage to become, then, faint and querulous voices in the background. In the radically changing scene of medical care there is too much at stake, for patients and physicians alike, for us to impair our strength with petty divisions.

In a recent poll in the East, a group of people were questioned as to whom, among 20 occupations, they trusted most. Physicians were first on their list while politicians were number 19, towering, by one place, over used car salesmen. Great change in health care is in process. How much better it would be to have the change guided by organized medicine through its health professionals whom people trust than by politicians whom they do not. —JAMES F. BISHOP, M.D., *IMS Trustee*

PACKAGE INSERTS CONSTITUTE LEGAL DOCUMENTS

Physicians take on serious legal responsibilities when prescribing certain drugs for conditions not named in the official package inserts and labels. We are supposedly pacified by statements that Congress does not intend for the FDA to interfere with medical practice, but the regulations further indicate a more serious note. FDA is charged with the responsibility for judging the safety and effectiveness of drugs as well as the truthfulness of their labels. The physician makes the final judgment for the use of the prescription drugs based on the information contained in their labeling and such other data which is available. This is where the regulations become a bit hazy.

The physician who uses a drug for a purpose not explicitly denoted in the labeling, technically is using the drug in an investigational manner. Thus, he becomes subject to question. It would be in the best interests of the physician and the patient to submit an investigational new drug plan before prescribing an approved drug for unapproved uses.

The FDA in its October 1972 DRUG BULLETIN attempts to mollify the fears of physicians that they may be unduly liable for malpractice. The labeling is "not intended either to preclude the physician from using his best judgment in the interest of the patient, or to impose liability if he does not follow the package insert." However, "the package insert represents a summary of the important information of the conditions under which the drug has been shown to be safe and effective by adequate scientific data submitted to FDA."

FDA is proposing a new regulation to clarify the legal status of the package inserts. It is also specifying actions it can take with respect to unapproved uses of approved prescription drugs. Until the air is clear on the legal ramifications of all the new regulations over drug use, it would seem prudent on the part of the physician to be aware of the content of the package insert of all drugs prescribed. There is no question that many drugs have been used inappropriately. Some regulation seems feasible. However, the clinical judgment of the experienced and dedicated physician also must carry significant weight in the use of drugs. Certainly no physician would advocate the use of drugs not previously studied, nor use drugs which are known to be basically harmful. Admittedly, in some instances, there is a fine line between efficacy and harmful effects; here the scientific background of the physician must be joined with the art of medicine in the final decision.—M.E.A.

IN THE PUBLIC INTEREST



ON THE IOWA FOUNDATION FOR MEDICAL CARE

WHAT'S EVERY IOWA CITIZEN interested in when it comes to medical care? It's not difficult to respond to this inquiry. He wants to know it's good, that it's provided in appropriate amounts, that it's available in reasonable proximity to his home, and he wants to be assured he's paying a fair price for it.

This is what the Iowa Foundation for Medical Care is all about. The Foundation was created in 1971 by Iowa physicians as part of a renewed and stepped-up effort to assure at least three of the four elements noted in the opening paragraph.

The Foundation philosophy is set forth clearly and succinctly in the first of 11 stated purposes in its corporate charter: *"To develop, promote and encourage the distribution of quality medical services to those served at an equitable cost and in an appropriate quantity."*

What progress has the Foundation made toward achieving this imposing objective? What has been accomplished in one-and-a-half years? Do the public and the medical profession have reason to be optimistic about the potential of this mechanism? These are the obvious key questions which any incisive interrogator might advance.

The Foundation is proceeding apace in its mission and its officers can reply to these questions with affirmative declarations. By so stating we do not infer that in 18 months time a finely honed medical control mechanism has emerged. What we do mean is that the Foundation (1) has taken some giant strides in the organizational process, (2) is steadily increasing its base of active support among Iowa physicians, (3) is conducting vital discussions with other health care entities, (4) has located several sources of all-important initial funding, and (5) has embarked on a sound program to enhance and enforce the delivery of quality medical care in the State of Iowa.

PEER REVIEW

Peer Review is the phrase which appears most prominently and most importantly on the mythical cornerstone of the Iowa Foundation for Medical Care. At the heart of the Foundation program are these two words. What do they mean? *Peer review* is the evaluation by practicing physicians of the quality and efficiency of services ordered or performed by other practicing physicians. It is the all-inclusive term for medical review efforts.

In July of this year the parent Iowa Medical Society entrusted the bulk of its *peer review* activities to the Foundation for Medical Care. In the interval between then and now, the Foundation, whose Board of Directors includes 20 Iowa physicians, has taken steps to make its medical review program as efficient and as effective as possible. Part of the recent effort has involved the formation of six district (separate geographical entities) committees, each with 15 members. These 90 physicians carry voluntarily on their shoulders the important responsibility for making the Foundation an instrument worth its salt. Briefings have been held this fall with each district committee to provide guidance and support in this vital professional control process. A definite set of procedural steps will be followed by each group as it goes about its work.

The district review committees have a grasp or understanding of the medical delivery customs which exist within the boundaries they serve; this first-hand awareness will be invaluable. The six district system, in addition to permitting representation in the peer review process by all areas of the state, has as a further objective apportion-

ment of the work load in a more or less even manner.

Moving hand-in-hand with the establishment and refinement of the Foundation peer review process has been extensive discussion and negotiation with the health insurors in Iowa. Talks with representatives of the health insurance companies have been enlightening and productive. The Foundation has high hopes of entering into formal relationships with these companies for the purpose of providing broad medical review. The Foundation will serve these third parties by providing medical evaluation of all questions concerning fees as well as the use (over or under) of services.

NORMS AND STANDARDS

To accomplish the foregoing the Foundation has compiled for guidance use certain basic tools which have been named *norms* and *standards.* A *norm* may be described as an identified point on a range of fees charged by physicians with common characteristics for a particular medical service. For example, the range of reported charges for a medical procedure may be $85 to $125. By analyzing the frequency of charges at various monetary levels a mathematical determination may result in the *norm* being set at $110 for this service.

When those third parties affiliated with the Foundation receive a claim which exceeds the identified *norm,* procedures call for it to be transmitted to the Foundation for physician review. The fee data used in this whole process will be dynamic in nature, meaning of course it will change as computerized analysis of new data occurs and supports an update.

In addition to *norms,* the Foundation has used the time, knowledge and energy of a number of physicians to prepare a book of *standards* of accepted care for more than 300 of the most common medical procedures employed today.

These *standards* are designed to be helpful to hospital medical staffs as they evaluate the level and efficiency of care which their physician members provide. They will be helpful also to the district review committees and the insurance companies as a means of measuring the under- or over-utilization of services.

What is an example of the *standards* about which you write? As stated, the *standards* have been devised by physicians to assist other physicians and to serve both as educational tools and as vehicles to promote quality control. Take the relatively common physical ailment, acute appendicitis: The Foundation standard for appendicitis lists appropriate entries under the headings: *Indications for Admission, Probable Length of Stay, Complications That May Extend Length of Stay, Indications for Discharge, Services Recommended (Including Work-up and Treatment)* and *Indications for Transfer to Extended Care Facility.* Here, as with the Foundation *norms,* the process of refinement will continue and ongoing effort will be exerted to make certain these *standards* are kept current and provide the backdrop for quality care. Obviously, they must be accepted as the guides they are, knowing each individual case has its unique features which must be evaluated in its own light.

To facilitate the Foundation review process, a one-on-one approach is contemplated. The assigned physician reviewer from one of the six committees will analyze a referred case, apply his own knowledge, consult with other physicians as necessary, and make a recommendation as to the manner in which the case should be handled. Full committee review will occur on the more difficult cases. In both instances the review will be conducted without knowledge of the patient's or physician's name. This will increase the objectivity of the review and eliminate the burden of personality involvement.

The Foundation's whole review process has been devised to allow both for dispatch and fairness; these ingredients have obvious appeal to all concerned and address an earlier criticism, namely the extended time interval between receipt of case and ultimate recommendation.

PSRO IMPLICATIONS

The action of the United States Congress in passing the Social Security Amendments of 1972 has heightened the potential of the Foundation. This new law embodies what's known as the Professional Standards Review Organization (PSRO). The government must by 1974 contract with a PSRO to do peer review for Medicare and Medicaid. The first priority for establishing PSRO mechanisms resides with the medical profession. The Secretary of Health, Education and Welfare must arrange for PSRO activity to be performed by a "qualified organization which represents a substantial proportion of the physicians in the geographical area." With this requirement met the PSRO must then "assure proper utilization of care and services . . . utilizing a formal professional mechanism representing the broadest cross-section of practicing physicians in an area."

Much more could and will be said about the inauguration of PSRO. Suffice it to say the Iowa Foundation for Medical Care now has the basics for the program drawn by the PSRO architects. With only slight modification of its emerging program, the Foundation will be able to include this important task in its overall program. This broad *In the Public Interest* effort belongs on the plus side of the medical profession's ledger.

About IOWA Physicians

Dr. Joseph Song, a Des Moines pathologist, will serve as chairman of the advisory committee of the Sickle Cell Education and Detection Program which is administered by the Des Moines-Polk County Health Department.

Dr. A. Dudley Dennison, of Lake Panorama, was guest speaker at a recent dinner meeting in Perry sponsored by the Dallas County Hospital Auxiliary. His talk was entitled "A Community and a Hospital Are at Stake."

Dr. Walter B. Eidbo, a Des Moines surgeon, participated recently in a panel discussion at the annual meeting of the Central Iowa Chapter of the National Multiple Sclerosis Society. At the Des Moines meeting Dr. Eidbo discussed "The Personal Care of the Patient."

The Clinton County Cancer Society has presented to **Dr. Milton E. Barrent,** the American Cancer Society's 15-year volunteer service award in recognition of his activities as service chairman for Clinton County over this period of time.

Dr. William B. Bean, Sir William Osler Professor of Medicine at The U. of I. College of Medicine, was the first visiting professor of medicine at St. Joseph's Hospital and Medical Center in Phoenix, Arizona. Dr. Bean gave lectures from October 9 to 11 on "Bleeding in Unusual Disorders with Diagnostic Skin Lesions," "Useful Lessons from Rare Diseases" and "Vascular Spiders and Related Lesions of the Skin."

Dr. George D. Penick, professor and head of the Department of Pathology at The U. of I. College of Medicine, chaired a recent meeting in Iowa City for chairmen of departments of pathology in midwest medical colleges. The following U. of I. faculty members also participated—**Dr. David A. Barrett II, Dr. William B. Bean, Dr. Reginald R. Cooper, Dr. Thomas H. Kent, Dr. Michael L. O'Connor** and **Dr. Richard E. Peterson.**

Dr. John Hubiak of Odebolt, recently received a plaque from the Horn Memorial Hospital Auxiliary in recognition of his outstanding efforts in establishing and maintaining the coronary care center at the Ida Grove hospital. The plaque was presented at the Auxiliary's annual meeting.

The following Iowa physicians were awarded fellowships in the American Academy of Family Physicians at the organization's national meeting in New York City—**Dr. Rudolph J. Ferlic,** Carroll, **Dr. D. N. Crabb,** Denison, **Dr. C. H. Fee,** formerly of Denison, **Dr. M. G. Bourne,** Algona, **Dr. Otto E. Senft,** Monticello, **Dr. William A. Castles,** Dallas Center, **Dr. D. G. Sattler,** Kalona, **Dr. C. W. Beckman,** Kalona, **Dr. Paul Wolpert,** Onawa, **Dr. C. R. Rominger,** Waukon, **Dr. J. H. Thomas,** Sibley, **Dr. Thomas Shonka,** Clarinda, **Dr. David C. Carver,** Rockwell City, **Dr. E. M. Eneboe,** Hawarden, **Dr. Thomas E. Kane, Dr. Robert A. Manderscheid** and **Dr. Ralph L. Wicks,** all of Boone, and **Dr. E. E. Linder,** of Ogden.

Dr. Stanley W. Greenwald and **Dr. Lowell A. Luhman,** both of Iowa City, were among 1,527 new fellows inducted into the American College of Surgeons at a recent annual meeting in San Francisco. Both physicians received the M.D. degree at The U. of I. College of Medicine. Dr. Luhman is also a fellow of the American College of Obstetrics and Gynecology.

Dr. and Mrs. Lowell Bond, of Ames, left in September for Jos, Nigeria, where they will serve as missionary doctor and nurse for a Nigerian medical center. Dr. and Mrs. Bond will spend a year in the central Nigerian community so the two doctors at the center may alternate in taking six-month leaves of absence. Dr. Bond plans to return to Ames to rejoin his two partners, **Dr. Thomas D. Gartin** and **Dr. Lee E. Rosebrook.**

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Dr. Donald Nibbelink, assistant professor, and **Dr. Maurice Van Allen,** professor in the Department of Neurology at The U. of I. College of Medicine, were guest speakers at a two-day postgraduate conference on psychiatry at the Psychopathic Hospital in Iowa City.

Dr. John J. Finneran and **Dr John R. Scheibe,** of Bloomfield and **Dr. Phil Gutierrez,** of Waukon, attended the annual meeting of the American College of Surgeons in San Francisco.

Dr. Richard M. Caplan, assistant dean for continuing education at The U. of I. College of Medicine, and **Dr. Howard B. Latourette,** professor of radiology, participated in a September meeting of the American Association for Cancer Education at the University of Rochester. Dr. Caplan also attended recently a National Institutes of Health invitational workshop on "Diffusion of Innovation in Medicine" at Cornell University.

Dr. Frank T. Aledia, of Fort Madison, has been named chairman of the North Lee County Chapter of the American Cancer Society.

Dr. Donald Cline, of Creston, was guest speaker at an October meeting of the Greater Community Hospital Auxiliary. Dr. Cline presented a program on Area Health Planning.

Dr. Sidney Sands, director of medical education and psychiatric services at Broadlawns-Polk County Hospital; Dr. Harold Mulford, director of the Oakdale Alcohol Treatment Unit at The University of Iowa; **Dr. Selig Korson,** Superintendent of the Mental Health Institute at Independence, and **Dr. Leroy K. Berryhill,** director of the North Central Iowa Mental Health Center in Fort Dodge, participated in a panel discussion at the recent annual meeting of the Iowa Association for Mental Health in Des Moines.

Dr. Gerald C. Miller has established a private surgical practice in Clarinda. Dr. Miller formerly practiced in Carroll where he was associated with the Carroll Medical Center.

Dr. Volker E. Dube, a Mason City pathologist, presented a paper entitled, "Prostatic Ductal Adenocarcinoma," at the annual meeting of the American Society of Pathologists which occurred in San Francisco during October. Dr. Dube also



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participated in an October seminar on "Recent Developments in Prostatic Carcinoma in Man," held at the National Institutes of Health in Bethesda, Maryland.

Dr. Rex R. Johnson has joined the staff of Holy Family Hospital in Estherville as chief radiologist. Dr. Johnson received the M.D. degree at the University of Louisville and served his internship at Mercy Hospital in Des Moines. He was certified by the American Board of Radiology in Therapy and Nuclear Medicine in 1962 and is a member of the American College of Radiologists.

At the annual meeting of the Iowa Division, American Cancer Society held recently in Des Moines, **Dr. Regis Weland,** a Cedar Rapids radiologist, was re-elected chairman of the Board of Directors, and **Dr. John McGee,** of Fort Madison, was elected a member of the Board. Dr. Weland was also presented an award for 15 years service in the division. He is a past president of the Iowa division; past chairman of the state professional committee; past chairman of the Linn County Cancer Society and has headed various local committees.

Dr. Keith Swanson, of Atlantic, was guest speaker at a recent meeting of the Senior Citizens Club in Marne. His topic was "Facts on Medicare."

Dr. William Nordyke has assumed the medical practice of **Dr. Reuben Widmer** in Winfield. A native of Richland, Iowa, Dr. Nordyke was graduated from medical school and interned in New Jersey. Following two years of military service, he practiced medicine for nine years in Clifton, New Jersey. Dr. Nordyke recently passed the examinations of the American Board of Family Practice. Mrs. Nordyke is a registered nurse and will assist in the office.

Dr. Lloyd E. Caauwe, of West Point, has moved his medical practice to the building occupied by **Dr. Frank L. Poepsel** until his retirement from the practice of medicine last year.

Dr. R. L. Baltzell has resumed his medical practice at the Little Sioux Medical Clinic in Anthon. Dr. Baltzell practiced medicine in Anthon from 1960 until May, 1972, when he moved to Harlingen, Texas. During his absence, **Drs. D. D. Kivlighn** and **M. C. Atash,** of Sioux City, served the clinic on a part-time basis.

Dr. Gerald Brooks, of Cherokee, has been named medical director of the Siouxland Mental Health

Center effective January 1. Dr. Brooks currently is chief of the children's unit at the Mental Health Institute in Cherokee and is assistant medical director of the Northwest Iowa Mental Health Center in Spencer. A 1963 graduate of the Tulane Medical School in New Orleans, Dr. Brooks served his internship at the Huey P. Long Charity Hospital in New Orleans. Following his military service, he completed his residency in psychiatry at the Mental Health Institute in Cherokee.

Dr. Richard L. Kreiter, an orthopedic surgeon, has joined the Bluff Medical Center in Clinton. Dr. Kreiter attended the Medical School of Physicians and Surgeons in New York City and received the M.D. degree at The U. of I. College of Medicine in 1965. He served an internship at Cincinnati General Hospital, University of Cincinnati Medical Center, and followed this with a residency in general surgery at Gunderson Clinic in LaCrosse, Wisconsin. After military service, Dr. Kreiter took a residency in orthopedic surgery at Campbell Clinic and the University of Tennessee in Memphis, Tennessee. Dr. Kreiter is on the staffs of Jane Lamb and Mercy Hospitals in Clinton as well as the DeWitt Community Hospital.

The following Sioux City physicians served as faculty members at a recent clinical conference at St. Vincent Hospital in Sioux City co-sponsored by the Woodbury Medical Society and The U. of I. College of Medicine—**Drs. Charles E. Jones, Richard T. Satterfield, Stuart W. Leafstedt,** and **James J. Goebel.** U. of I. visiting faculty members were **Dr. Charles E. Hawtrey** and **Dr. Richard L. Lawton.** Dr. Hawtrey spoke on "Familial Ureteral Reflux," and Dr. Lawton's topic was "Cadaver Organ Recovery for Transplantation." The local conclave was part of a program of community clinical conferences scheduled in 11 Iowa cities this year and directed by **Dr. Richard M. Caplan,** assistant dean for continuing medical education at The U. of I. College of Medicine.

Dr. K. E. Jauch, of La Porte City, spoke on diabetes mellitus at a recent Waterloo meeting of the Black Hawk Chapter of the American Association of Medical Assistants, State of Iowa. Dr. Jauch has been advisor of the Northeast Iowa Diabetes Association this past year. He has taught adult education classes on diabetes at the Hawkeye Institute of Technology.

Dr. Chung Sum Tam, an internist, has entered the private practice of medicine in Washington. Dr. Tam received the M.D. degree in Taiwan in 1962. He completed his postgraduate work and in-



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ternship in Canada. He has been associated with the Veterans Administration Hospital in Iowa City for two years.

Dr. F. Eberle Thornton, a former Des Moines orthopaedic surgeon, has joined the medical staffs at the Spencer Municipal Hospital and the Dickinson County Memorial Hospital in Spirit Lake. A coronary condition and subsequent heart surgery made it necessary for Dr. Thornton to suspend his Des Moines practice. He will work on a reduced schedule in the Iowa Great Lakes area where he has been a periodic summer resident for many years. Dr. Thornton began his private practice in Des Moines in 1945.

Dr. Joseph D. Brown, associate professor of internal medicine at The U. of I. College of Medicine, was guest speaker at a recent meeting of the Iowa Diabetes Association. Dr. Brown spoke on "Aspects of Diabetes."

Dr. William C. Rosenfeld, of Mason City, presented a program on "Heart Pacemakers" at the October meeting of the North Central Division of the Iowa Heart Association. Dr. Rosenfeld described the pacemaker and the heart condition which requires the surgical implantation of this device. **Dr. Dale A. Harding,** of Eagle Grove, president of the North Central Division, discussed the patient and the public education program.

Dr. Jack Frost, of Dubuque, has been elected to the American Society for Dermatologic Surgery.

Dr. Jack Morgan, of Fairfield, was guest speaker at a recent meeting of the Fairfield Women's Club. Dr. Morgan discussed venereal disease.

Dr. Julian Bruner, of Des Moines, presented the McIndoe Lecture in honor of Sir Archibald McIndoe, founder of the Royal Plastic Surgeons Society, at a meeting of the British Association of Plastic

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Surgeons held at the Royal College of Surgeons in London, England, December 7. Dr. Bruner is the first American invited to give this lecture.

Dr. Jack Moyers, professor and head of the Department of Anesthesiology at The U. of I. College of Medicine, has been elected vice president for scientific affairs of the American Society of Anesthesiologists. Dr. Moyers has been a member of the ASA House of Delegates for the past 14 years and is a delegate from the ASA to the World Federation of Societies of Anesthesiologists.

DEATHS

Dr. C. W. Maplethorpe, Sr., 86, died October 3 at Sunny Hill Care Center in Tama. Dr. Maplethorpe received the M.D. degree at The U. of I. College of Medicine in 1910. Following completion of his internship at Cook County Hospital in Chicago, he established his medical practice in Toledo and practiced there until retiring in 1967. Dr. Maplethorpe was a charter member and past president of the Toledo Lions Club, member of the Tama County Medical Society and Iowa Medical Society. Survivors include one son, **Dr. C. W. Maplethorpe, Jr.,** who practices medicine in Toledo.

Dr. Anthony C. Pfohl, 72, of Dubuque, died September 30 at Mercy Medical Center in Dubuque. Dr. Pfohl had practiced medicine in Dubuque for 40 years. A graduate of The U. of I. College of Medicine, he completed his internship and residencies in internal medicine, general surgery and obstetrics and gynecology at The U. of I. College of Medicine and studied advance surgery in Vienna, Austria. Dr. Pfohl was on the staff of three Dubuque hospitals. A veteran of World War I, he was a member of the American College of Surgeons, American Medical Association, Iowa Medical Society, Iowa Surgical Society, Iowa Clinical Society, and Dubuque County Medical Society.

Dr. Martin M. C. Wang, 54, of Clinton, died October 16 at Mercy Hospital in Clinton. Born in Wuan, China, Dr. Wang had been a pathologist at Mercy Hospital since July 1967. He was a member of the Iowa Medical Society and American Medical Association.

Dr. William M. Rohrbacher, 84, longtime Iowa City physician, died October 24 at Mercy Hospital in Iowa City. A 1912 graduate of The U. of I. College of Medicine, Dr. Rohrbacher had been in private practice in Iowa City since 1913. He was a life member of the Johnson County Medical Society, Iowa Medical Society and American Medical Association.



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RADIOLOGY WINDOW

CASE NO. 8

(Continued from page 623)

The correct diagnosis is volvulus of the cecum and this was confirmed at surgery when a counterclockwise rotation of the cecum was found to be occupying a region in the left upper quadrant. A resection of the cecum was performed with a partial resection of the proximal ascending colon. The tissue pathologic findings consisted of an acute necrotizing and hemorrhagic inflammation of the cecum and terminal ileum. This diagnosis is rarely made before surgery, because usually only a KUB or plain film of the abdomen is ordered and not followed with an order for a barium enema, which is of diagnostic value in this case.

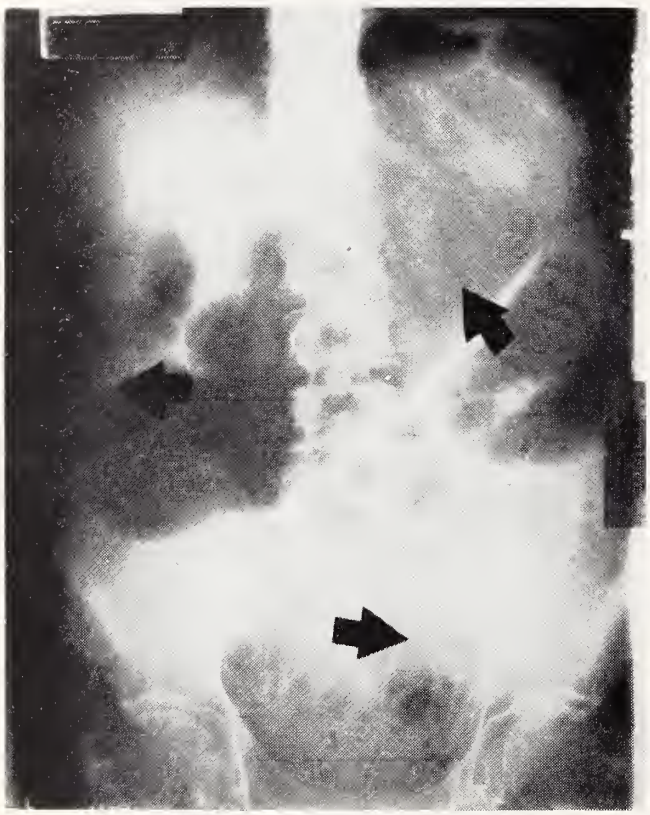


Figure 2

There are several findings on this KUB which can lead the radiologist to the diagnosis (these findings are indicated by arrows in Figure 2). First, one can visualize clearly a markedly distended segment of colon and its position corresponds to that of a dilated cecum. In volvulus the cecum becomes extremely dilated, due to its poor supply of musculature, and it is carried towards the splenic flexure. One then is aware of the absence of a shadow of the cecum in its usual anatomical location. Also noted are the loops of small bowel which are primarily left of the midline. The final sign is a kinking of the colon near the hepatic flexure.

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DOCTOR'S BUSINESS

(Continued from page 638)

Annual Income Before Taxes	Reasonable Value For Residence	Maximum Mortgage
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30,000	40,000	25,000
40,000	45,000	30,000
50,000	50,000	30,000
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70,000	60,000	35,000
80,000	65,000	40,000
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LIST YOUR WANTS

No charge is made for the ads of members, wives of deceased members of the Iowa Medical Society or physicians seeking Iowa locations; for others the cost is $1.00 per line, $5.00 minimum per insertion. Copy for ad must be received by the seventh of the month for the following issue. Send to JOURNAL OF THE IOWA MEDICAL SOCIETY, 1001 Grand, West Des Moines 50265.

GENERAL PRACTITIONER NEEDED: Practice with complete freedom of action in a rural atmosphere? Office next to pharmacy, ready for occupancy, no unseen strings. Moville, Iowa, 15 miles east of Sioux City offers just such a chance. Contact Moville Community Development Association, Inc., Moville, Iowa.

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FOR SALE—Autoclave, microscope, complete nose and throat treatment cabinets and chairs, slit lamp, nose and throat and tonsillectomy instruments. Contact E. A. McMurray, M.D., R.F.D. #2, Kellogg, Iowa 50135.

WANTED—INTERNIST AND GENERAL SURGEON—Board Qualified for four-man group in Iowa; two Internists and two Surgeons; own building; large modern hospital; midwest shopping and medical center; 30,000; well-balanced economy; 2 hours to three large cities; lake resort 10 miles away; hunting and fishing area; excellent school system; Junior college; art gallery; superb library facilities. Salary $25,000 plus bonus, depending on qualification. Early partnership. Address your inquiry to No. 1483, Journal of the Iowa Medical Society, 1001 Grand Avenue, West Des Moines, Iowa 50265.

EXPANDING ELEVEN MAN GROUP has openings for an Ophthalmologist, General Practitioner or Family Practice Physician, General Surgeon and Internist. New Clinic building. University city. One hour from St. Paul. Summer and winter recreation unlimited. Will finance travel for interview. Call or write A. A. Drescher, M.D., or Russell Peterson, Clinic Manager, P. O. Box 337, Menomonie, Wisconsin 54751. Telephone 715-235-9671.

WANTED—PHYSICIAN FOR STUDENT HEALTH SERVICE —8 physicians; hospital associated; salary competitive; excellent fringe benefits; an equal opportunity employer. Contact Gail Proffitt, M.D., Iowa State University, Ames, Iowa 50010 or telephone 515-294-5801.

VACANCY—ADMITTING AND PERSONNEL PHYSICIAN. Physician opening; pleasant university city with excellent schools; usual fine VA fringe benefits and retirement system; salary from $23,000 to $30,000 depending upon qualifications; nondiscrimination in employment. Apply Chief of Staff, VA Hospital, Iowa City, Iowa 52240.

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EMERGENCY ROOM PHYSICIAN NEEDED—full or part time; competent salary. Benefits negotiable. Contact Dale Wilson, M.D., St. Luke's Hospital, Davenport, Iowa 52803.

WANTED: Family practitioner or Internist to join eight-man group. Equal division of work, vacation, income and other fringe benefits, including postgraduate work and Keogh retirement. Write or call Ed Murphy, Clinic Manager, Carroll Medical Center, 502 North Court, Carroll, Iowa 51401. 712-792-1500.

INTERNIST—Board qualified or certified internist to join seven-man multispecialty group in Iowa. Excellent clinic and hospital facilities. Unusually progressive small community in which to live and raise family. First year $30,000, plus benefits; partnership in twelve months. Liberal vacation and meeting time. Contact Richard A. Callis, Administrator, McCrary-Rost Clinic, Lake City, Iowa 51449.

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FOR SALE—Verhoeff stereopter, $10, trifocal trial set, $5, Maico audiometer, $25, good microscope, $50, two nose and throat pressure suction cabinets, $25 each, Medical and Surgical History, War of Rebellion, printed in 1883, $50. Contact E. A. McMurray, M.D., R.R. #2, Kellogg, Iowa 50135.

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Medical Assistants

by TENORA MEYER, CMA

1000 PLUS IN PHOENIX

Three rainy days in the "Valley of the Sun" could not dampen the enthusiasm of the medical assistants attending the October 17-21 national convention in Phoenix. It was a great convention. The registration count was 1,010.

Nineteen Iowa medical assistants attended the convention, including: Winnie Donovan, CMA, Frances Hansen, CMA, Florence Hansen, Martha Haverkamp and Sally Gesink from Sioux City; Tenora Meyer, CMA, Mason City; Charlotte Lewis, CMA, Waterloo; Wilma Heller and Mary Bard Early, Cedar Rapids; Marylee Dickson, CMA, Mt. Pleasant; Sherry Chidester, CMA, Dorla Sansom, Lucille Holmes, Betty Ehlert, Nancy Greteman, Garnet Koder, Janet Martin, CMA, Des Moines; Marcine Sanders, CMA, and Jeanne D. Green, CMA, Davenport, who is also an AAMA trustee.

Thirteen new CMA's from Iowa were honored at the Wednesday banquet, at which they received the coveted CMA pin and certificate. They are as follows:

Barbara Andrews, Council Bluffs
Sherry Chidester, Des Moines
Marylee Dickson, Mt. Pleasant
Winnie Donovan, Sioux City
Jeanne D. Green, Davenport
Donna Lee Haney, Des Moines
Frances Hansen, Sioux City
Betty Lou Kelley, Council Bluffs
Charlotte Lewis, Waterloo
Mary Kay McGrain, Des Moines
Patricia Madsen, Council Bluffs
Janet Martin, Des Moines
Tenora Meyer, Mason City

The timely topic of "Acupuncture" was discussed at the convention by Dr. McGarey of Phoenix, who uses this mode of treatment in his practice. He used slides to show the various body meridians which are associated with the functions of the organs of the body.

Carl Hoffman, M.D., AMA President, talked expertly about the paramedical field and its importance to his own office practice. A group introduction of 1972 CMA's was held at the luncheon during which Dr. Hoffman spoke.

The mock malpractice suit against an obstetrician was well presented and very entertaining. It was written by Merton Marks, a Phoenix lawyer, who was also cast as defense attorney. It illustrated how lack of communication between medical assistant and doctor can produce a malpractice suit.

The installation of Betty Massey of San Diego, California, as AAMA President was a highlight.

At the Friday Awards Luncheon, we were pleased to have our Scott County, Iowa Chapter, receive a second place award for numerical increase in membership on the county level.

PAULINE TAPPAN ON SAFETY

Pauline Tappan, our Safety Committee chairman, attended a seminar on the "Occupational Safety and Health Act (OSHA)" on August 9. Her report is as follows:

"The morning session consisted of a July 1972 videotape prepared by experts in Washington, D. C., on the basic elements of the law and proper compliance with it.

"We are required by law to: (1) display the OSHA poster; (2) report as required any accident regarding an employee in our office; (3) be able to show a log of the injuries and accidents and the supplemental reports; (4) be able to show an annual summary.

OSHA's purpose is to protect our human resources by providing good rules and a safe place to work. Voluntary compliance was not enough as accidents declined for a couple of years and then began to rise again. In the long run, it will not only save lives and disabilities, it will save federal and society money by keeping everyone on the job with less loss of time and production.

"I am not an expert on safety—my sole purpose is to bring to your attention occupational hazards and the concern for safety. Safety does involve us all and it involves us all of the time. Let's practice it 'off work' as well as 'at work.' "

This page is prepared for and by Iowa Chapter, American Association of Medical Assistants. Material is compiled by Mrs. Tenora Meyer.

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Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.
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